



Distribution Design Catalogue –
Section 11:
LU – Low Voltage Underground

Standard Number: HPC-1DC-07-0011-2014

Document Control		
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Date Created/Last Updated	22 nd May 2024	
Review Frequency **	Annually	
Next Review Date **	22 nd May 2025	

* Shall be the Process Owner and is the person assigned authority and responsibility for managing the whole process, end-to-end, which may extend across more than one division and/or functions, in order to deliver agreed business results.

** Frequency period is dependent upon circumstances– maximum is 5 years from last issue, review, or revision whichever is the latest. If left blank, the default shall be 1 year unless otherwise specified.

Revision Control		
Revision	Date	Description
9	22/05/2024	Compatible Unit LUs update

Please see Appendix A for full revision history



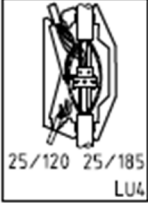

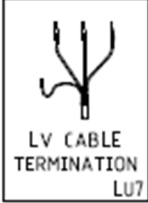






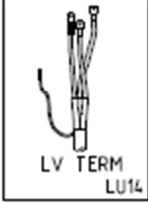

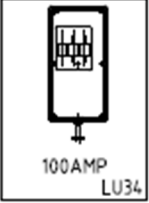
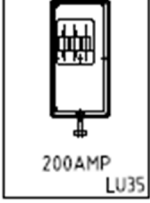


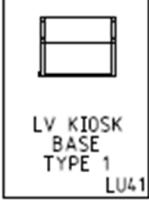
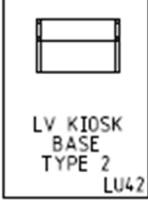
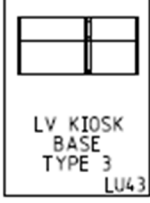


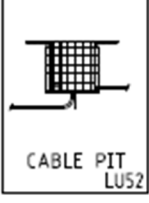
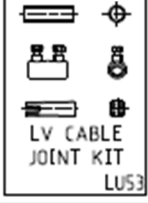
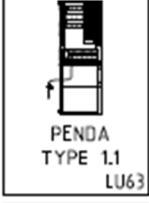

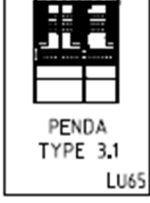
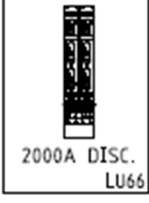
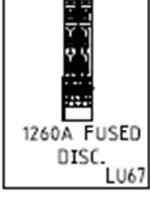




STAKEHOLDERS	
<i>The following positions shall be consulted if an update or review is required:</i>	
<i>Asset Managers</i>	<i>Field Practice Coordinators</i>
<i>Works Delivery Managers</i>	<i>Logistic Manager</i>
<i>Asset Service Delivery Managers</i>	<i>EPCM Contract Manager</i>

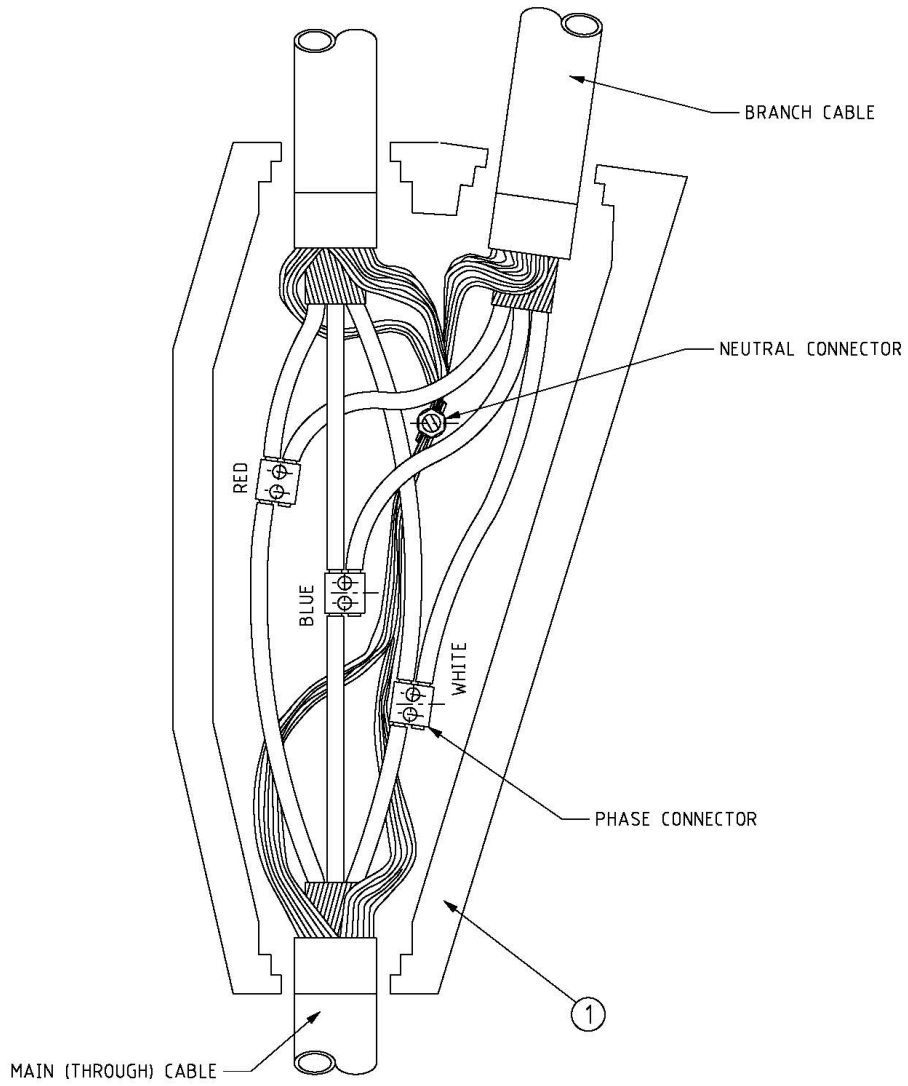
LOW VOLTAGE UNDERGROUND LIST

CU	CU DESCRIPTION
LU1	LV Breeches joint 120-240 Main to 120-240 Branch
LU2	LV Straight joint 120/240, 185/185, 185/240 & 240/240
LU4	LV Tee joint 25/120-25/185
LU5	LV Tee joint 25/240
LU7_240	Universal pillar termination – 120 to 240
LU8	Straight joint 25/25
LU9_240	240sqmm Cable to LV Krone
LU10	Mini pillar & 1 x 25sqmm cable termination
LU10_2TERM	Mini pillar & 2 x 25sqmm cable termination
LU10_CABTERM	25sqmm cable termination to existing pillar
LU10_W/END	Mini pillar used for working end
LU11	Universal pillar
LU12	Tee joint 10/10-10/16-16/16
LU13	Straight joint 10/10-10/16-16/16
LU14_16/160A	Cable to fuse switch- 16 (Single phase) / 160A Base
LU14_25/160A	Cable to fuse switch- 25 / 160A Base
LU14_25/630A	Cable to fuse switch- 25 / 630A Base
LU14_120	Cable to fuse switch - 120
LU14_240	Cable to fuse switch – 185 / 240
LU16_400CU16	Transformer 400sqmm Cu M16 Termination Kit
LU16_400CU12	PENDA 400sqmm Cu M12 Termination Kit
LU34	Wall mounted box – 100 amp
LU35	Wall mounted box – 200 amp
LU36_63A	J-type fuse 63A and carrier for universal pillar
LU36_100A	J-type fuse 100A and carrier for universal pillar
LU36_160A	J-type fuse 160A and carrier for universal pillar
LU36_200A	J-type fuse 200A and carrier for universal pillar
LU36_315A	J-type fuse 315A and carrier for universal pillar
LU36_Link	Link 400 amp for universal pillar
LU37_240	Cable to LV ABC Switch for a 240sqmm sq cable
LU41	Base for LV kiosk Type 1
LU42	Base for LV kiosk Type 2
LU43	Base for LV kiosk Type 3
LU50_25_95	Cable to LVABC – 25 to 95
LU50_25_150	Cable to LVABC – 25 to 150
LU50_SL_95	Street light cable to 95 ABC
LU50_SL_150	Street light cable to 150 ABC
LU51_25	25sqmm CU cable to LV Bare Conductor

PROTECTED

CU	CU DESCRIPTION
LU51_SL	Street light cable to LV Bare Conductor
LU52	Below Ground Service Pit
LU53	Low Voltage Cable Joint Kit
LU63	Type 1.1 PENDA Kiosk
LU64_I	Type 2.1 PENDA Kiosk - I (Indoor)
LU64_O	Type 2.1 PENDA kiosk - O (Outdoor)
LU65_I	Type 3.1 PENDA Kiosk - I (Indoor)
LU65_O	Type 3.1 PENDA Kiosk - O (Outdoor)
LU66_TX	2000A Tx Switch Disconnecter (Incoming Supply to PENDA)
LU66_CUST	2000A Customer Switch Disconnecter (Connection to PENDA)
LU67	1260A Fused Switch Disconnecter (Connection to PENDA)
LU68	910A Fused Switch Disconnecter (Connection to PENDA)
LU69	630A Fused Switch Disconnecter (Connection to PENDA)
LU70	160A Fused Switch Disconnecter (Connection to PENDA)

 120-240 MAJN TO 120-240 BRANCH LU1	 120/240 185/185 185/240 240/240 LU2	 25/120 25/185 LU4	 25/240 LU5	 LV CABLE TERMINATION LU7	 25-25 LU8	 CABLE TO LV KRONE LU9
 MINI PILLAR LU10	 UNI PILLAR LU11	 10/16 T JOINT LU12	 10/16-10/16 LU13	 LV TERM LU14	 TERM KIT LU16	 100AMP LU34
 200AMP LU35	 LINK/FUSE LU36	 CABLE-LVABC LU37	 LV KIOSK BASE TYPE 1 LU41	 LV KIOSK BASE TYPE 2 LU42	 LV KIOSK BASE TYPE 3 LU43	 10/16 & 25 / LVABC LU50
 10/16 & 25 / LVBARE LU51	 CABLE PIT LU52	 LV CABLE JOINT KIT LU53	 PENDA TYPE 1.1 LU63	 PENDA TYPE 2.1 LU64	 PENDA TYPE 3.1 LU65	 2000A DISC. LU66
 1260A FUSED DISC. LU67	 910A FUSED DISC. LU68	 630A FUSED DISC. LU69	 160A FUSED DISC. LU70			
 DISTRIBUTION DESIGN CATALOGUE OPERATIONS DIVISION	COMPATIBLE UNIT				REVISION 6	DATE 13/05/2024
	LU COMPATIBLE UNITS				DRAWING No. LU INDEX	

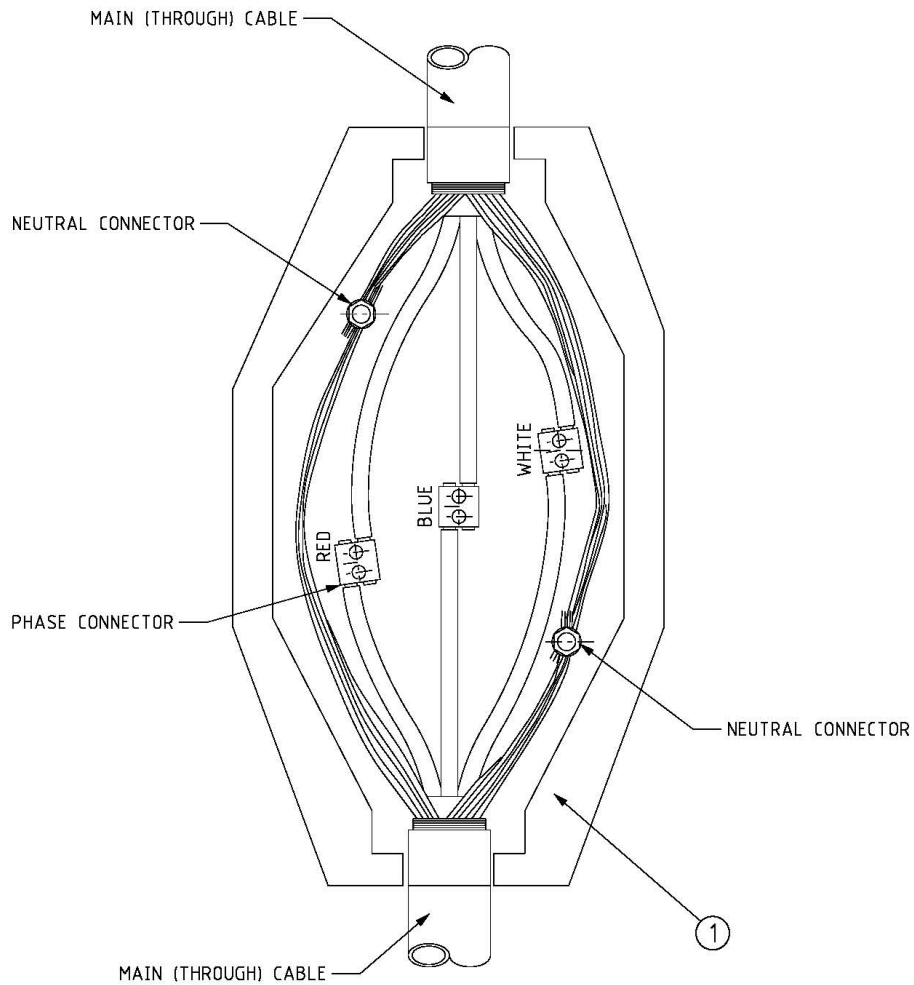


HORIZON POWER DISTRIBUTION DESIGN CATALOGUE OPERATIONS DIVISION	COMPATIBLE UNIT	REVISION 2	DATE 01/07/2020
	LV BREECHES JOINT 120-240 MAIN TO 120-240 BRANCH	DRAWING No. LU1	

PROTECTED

CU	CU DESCRIPTION
LU1	Breeches joint 120-240 Main to 120-240 Branch

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FJ0063	LV Breech Joint kit –120-240sqmm to 120-240 sqmm wavecon XLPE cable	1	ea	
	KC0014	LV Joint resin, Guroflex two-part 4 litre	5	ea	

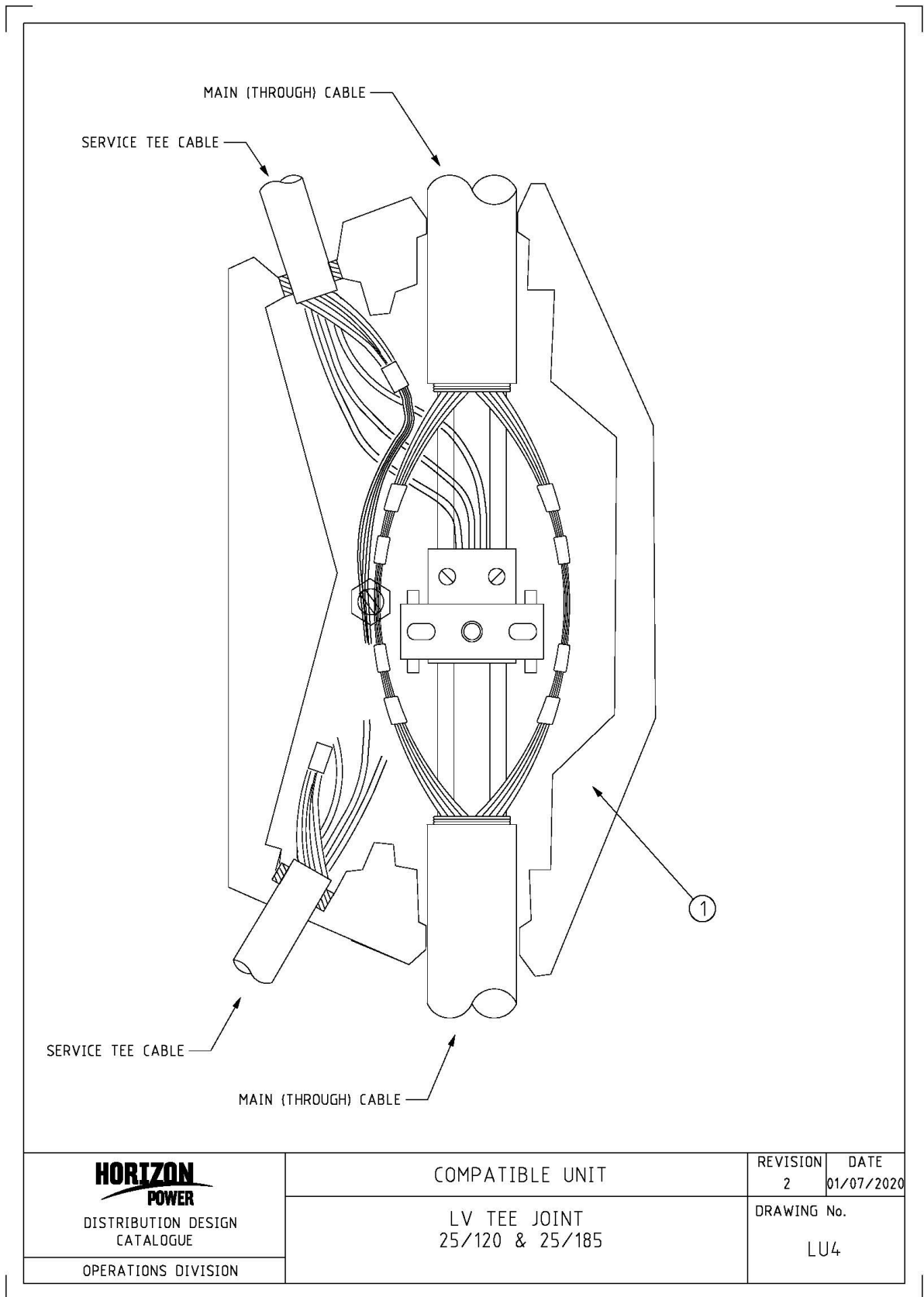


HORIZON POWER DISTRIBUTION DESIGN CATALOGUE OPERATIONS DIVISION	COMPATIBLE UNIT		REVISION 2	DATE 01/07/2020
	LV STRAIGHT JOINT 120/240, 185/185, 185/240 & 240/240		DRAWING No. LU2	

PROTECTED

CU	CU DESCRIPTION
LU2	Straight joint 120/120-120/185-120/240-185/185-185/240-240/240

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FJ0062	LV Straight Joint kit –120-240sqmm wavecon XLPE cable	1	ea	
	KC0014	LV Joint resin, Guroflex two-part 4 litre	2	ea	

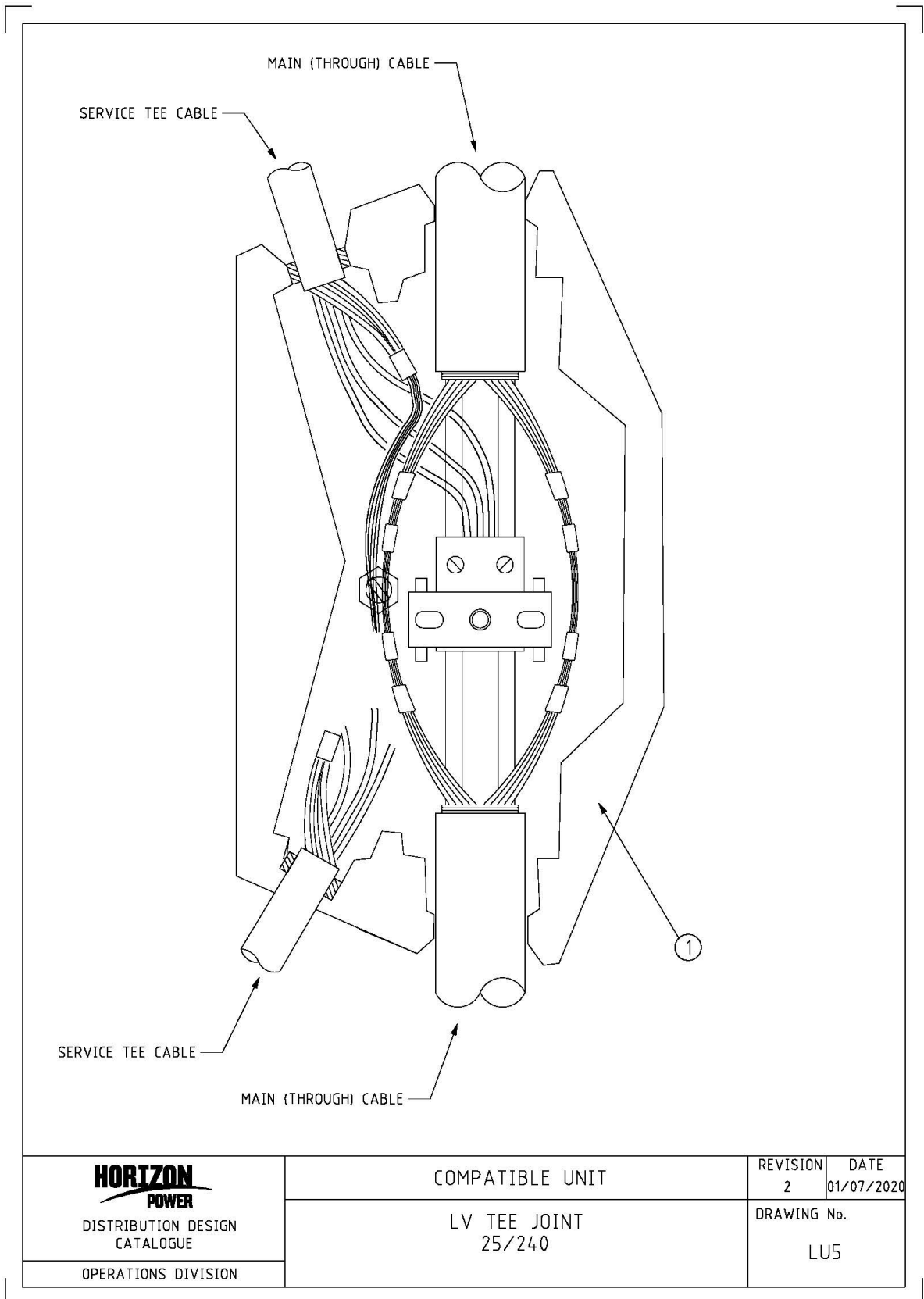


HORIZON POWER DISTRIBUTION DESIGN CATALOGUE OPERATIONS DIVISION	COMPATIBLE UNIT	REVISION 2	DATE 01/07/2020
	LV TEE JOINT 25/120 & 25/185	DRAWING No. LU4	

PROTECTED

CU	CU DESCRIPTION
LU4	LV Tee joint 25/120-25/185

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FJ0067	LV Tee Joint kit –120-185sqmm wavecon to 25sqmm service XLPE cable	1	ea	
	KC0014	LV Joint resin, Guroflex two-part 4 litre	2	ea	



**HORIZON
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DISTRIBUTION DESIGN
CATALOGUE
OPERATIONS DIVISION

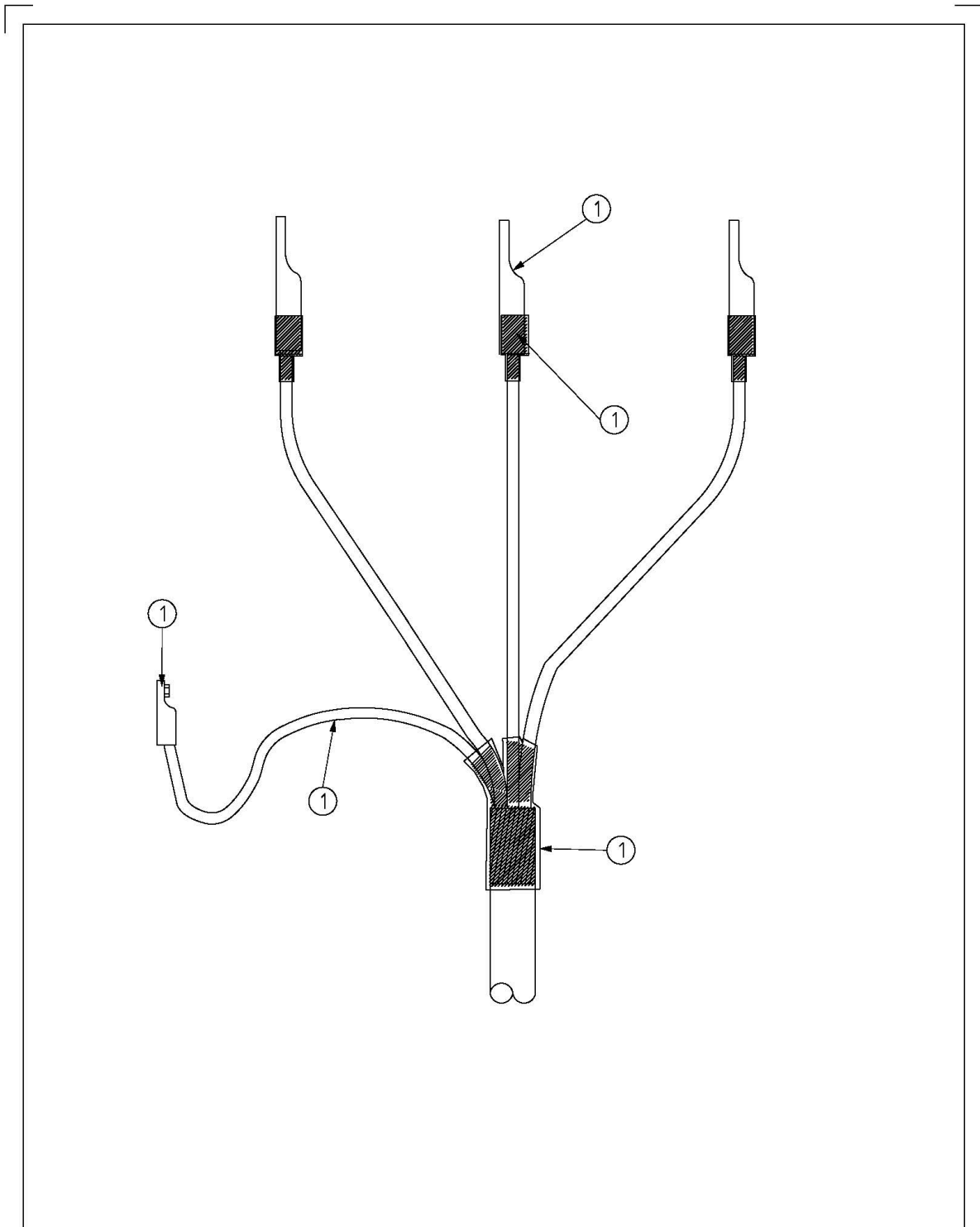
COMPATIBLE UNIT
LV TEE JOINT
25/240

REVISION	DATE
2	01/07/2020
DRAWING No.	
LU5	

PROTECTED

CU	CU DESCRIPTION
LU5	Tee joint 25/240

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FJ0066	LV Tee Joint kit –240sqmm wavecon to 25sqmm service XLPE cable	1	ea	
	KC0014	LV Joint resin, Guroflex two-part 4 litre	2	ea	

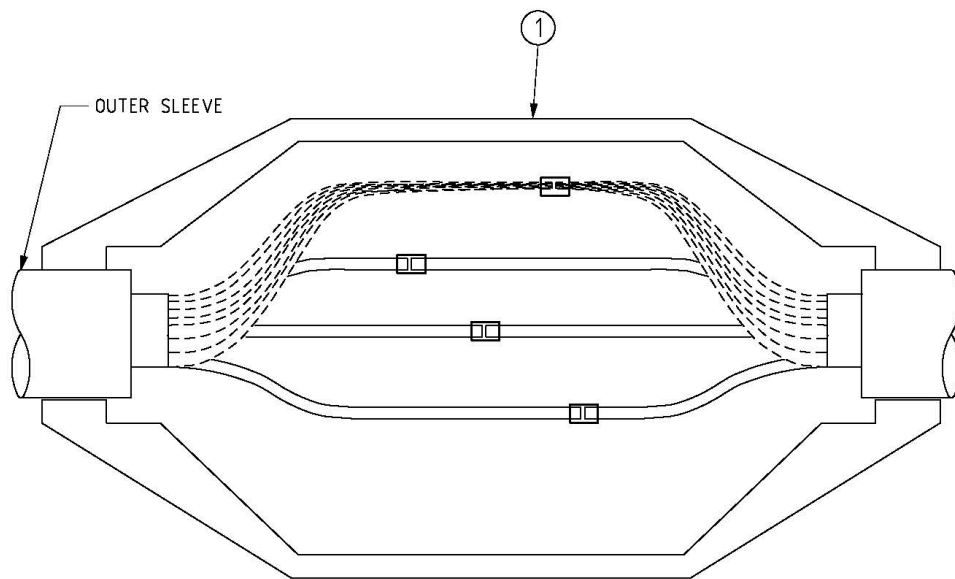


HORIZON POWER DISTRIBUTION DESIGN CATALOGUE OPERATIONS DIVISION	COMPATIBLE UNIT	REVISION 2	DATE MAR 2020
	UNIVERSAL PILLAR TERMINATION	DRAWING No. LU7	

PROTECTED

CU	CU DESCRIPTION
LU7_240	Universal pillar termination – 120 to 240

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FJ0615	Termination Kit, for 120-240sqmm cable	1	ea	

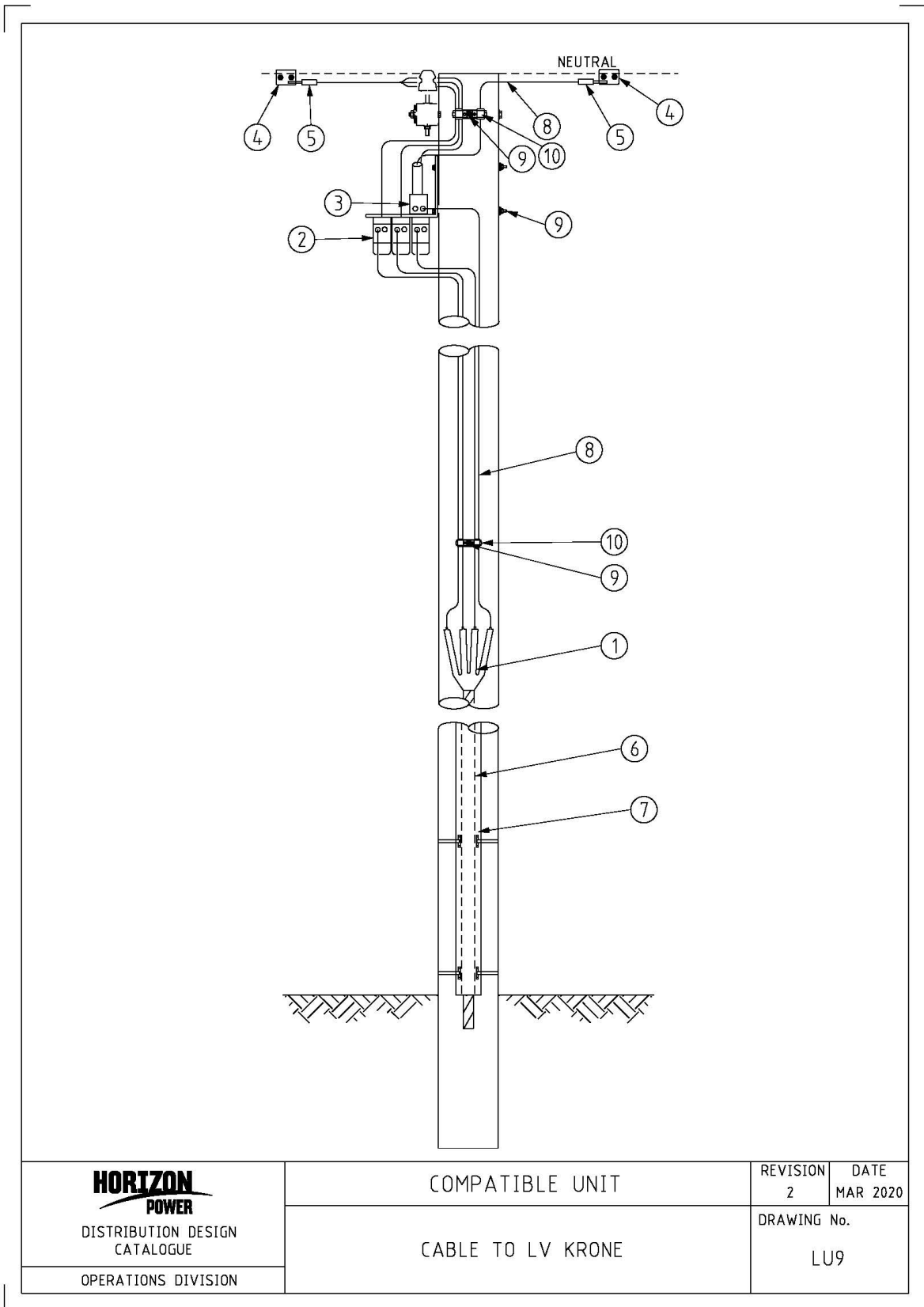


HORIZON POWER DISTRIBUTION DESIGN CATALOGUE OPERATIONS DIVISION	COMPATIBLE UNIT	REVISION 3	DATE MAR 2020
	25/25 STRAIGHT JOINT	DRAWING No. LU8	

PROTECTED

CU	CU DESCRIPTION
LU8	Straight joint 25/25

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FJ0238	Joint Box – Straight for 25sqmm cable	1	ea	



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 OPERATIONS DIVISION

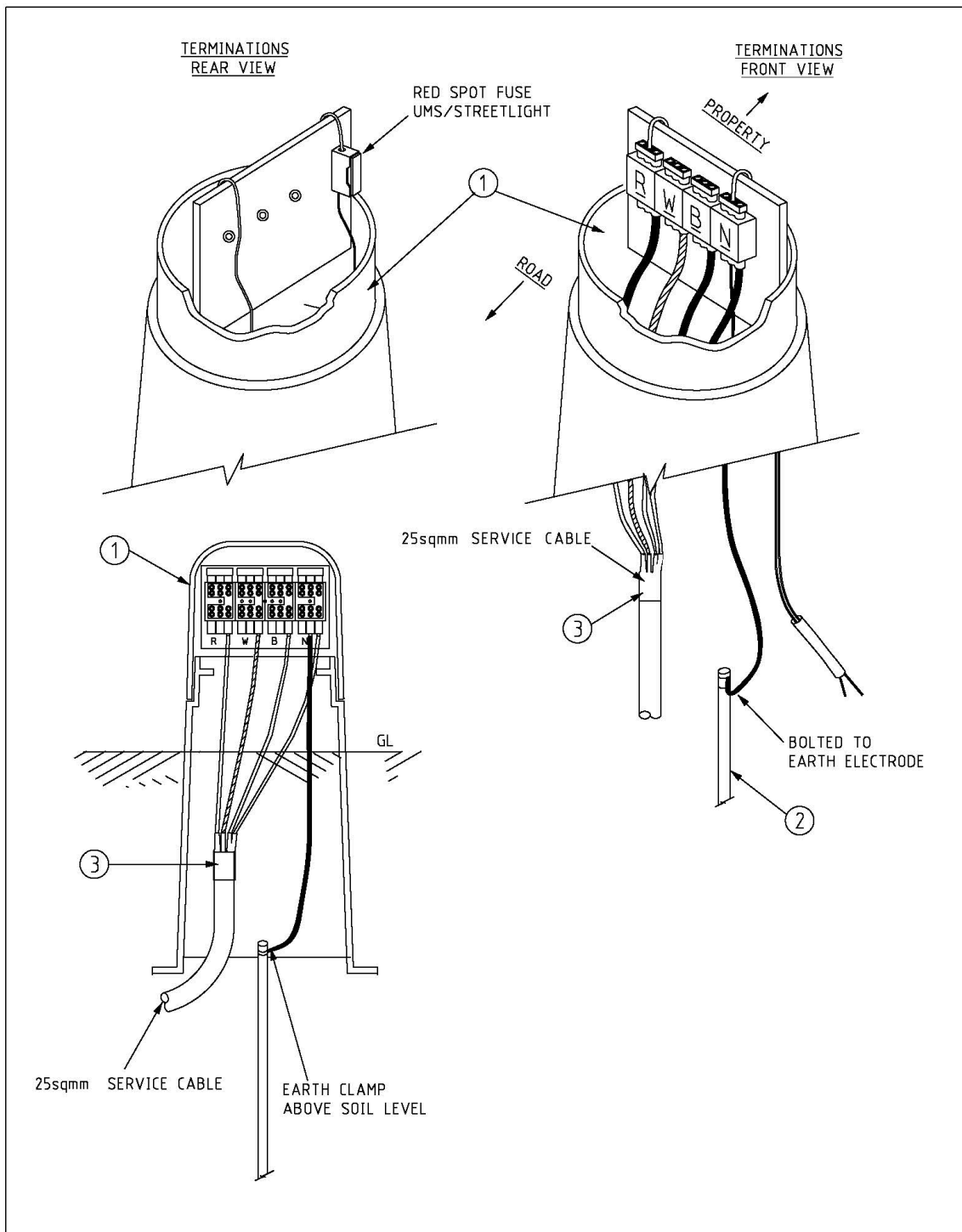
COMPATIBLE UNIT
 CABLE TO LV KRONE

REVISION 2	DATE MAR 2020
DRAWING No. LU9	

PROTECTED

CU	CU DESCRIPTION
LU9_240	240sqmm Cable to LV Krone

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FC0499	Splice 95-150 ABC to 120-240sqmm	1	ea	
2	GS0111	Fuse disconnecter (Rated 400A)	1	ea	
2	GF1101	Fuse link 315A	3	ea	
3	GS0109	Neutral block	1	ea	
4		PG Clamps – Select from CN9	4	ea	
5	CJ0496	Splice 150 ABC with alum tail	4	ea	
6	CB3120	Cable saddle, galvanised	3	ea	
7	HT6320	Cable protector steel, galvanised channel	1	ea	
8	FT0150	Lead 150 ABC 4m long	1	ea	
9	AB6733	Pole bolt – M16 x 400 mm long with nut and washers	4	ea	
10	CC0110	Suspension clamp – 150 ABC	4	ea	
10	AN2005	M16 nut galvanized	2	ea	



HORIZON POWER DISTRIBUTION DESIGN CATALOGUE OPERATIONS DIVISION	COMPATIBLE UNIT	REVISION 4	DATE 19/10/2021
	MINI PILLAR & TERMINATIONS	DRAWING No. LU10	

PROTECTED

CU	CU DESCRIPTION
LU10	Mini pillar & 1 x 25sqmm cable termination

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FBH0059	Mini pillar	1	ea	
2	CE0135	Rod section 1.4 m long 15 mm diam. ALM CTE	1	ea	
	CE0058	Clamp, double saddle type 13-15mm for earth rod	1	ea	
3	FE0109	heat shrink glove and sleeving	1	ea	

CU	CU DESCRIPTION
LU10_2TERM	Mini pillar & 2 x 25sqmm cable termination

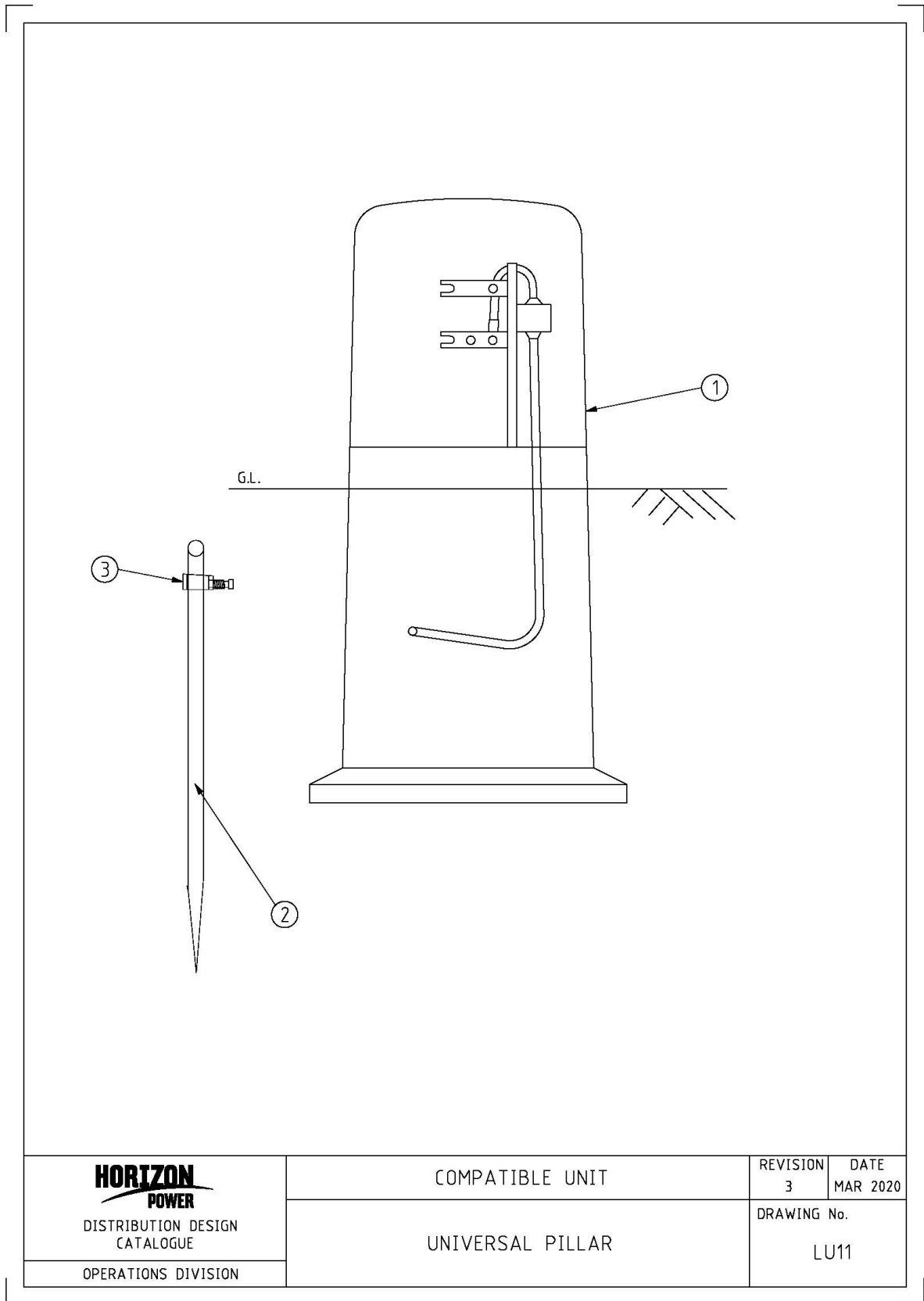
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FBH0059	Mini pillar	1	ea	
2	CE0135	Rod section 1.4 m long 15 mm diam. ALM CTE	1	ea	
	CE0058	Clamp, double saddle type 13-15mm for earth rod	1	ea	
3	FE0109	heat shrink glove and sleeving	2	ea	

CU	CU DESCRIPTION
LU10_CABTERM	25sqmm cable termination to existing pillar

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
3	FE0109	heat shrink glove and sleeving	1	ea	

CU	CU DESCRIPTION
LU10_W/END	Mini pillar used for 120-240 Cable Working End

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FBH0059	Mini pillar	1	ea	
3	FE0034	heat shrink glove	1	ea	
	FE0055	insulation sleeving	2	mtr	
	UH0088	instruction tag	1	ea	

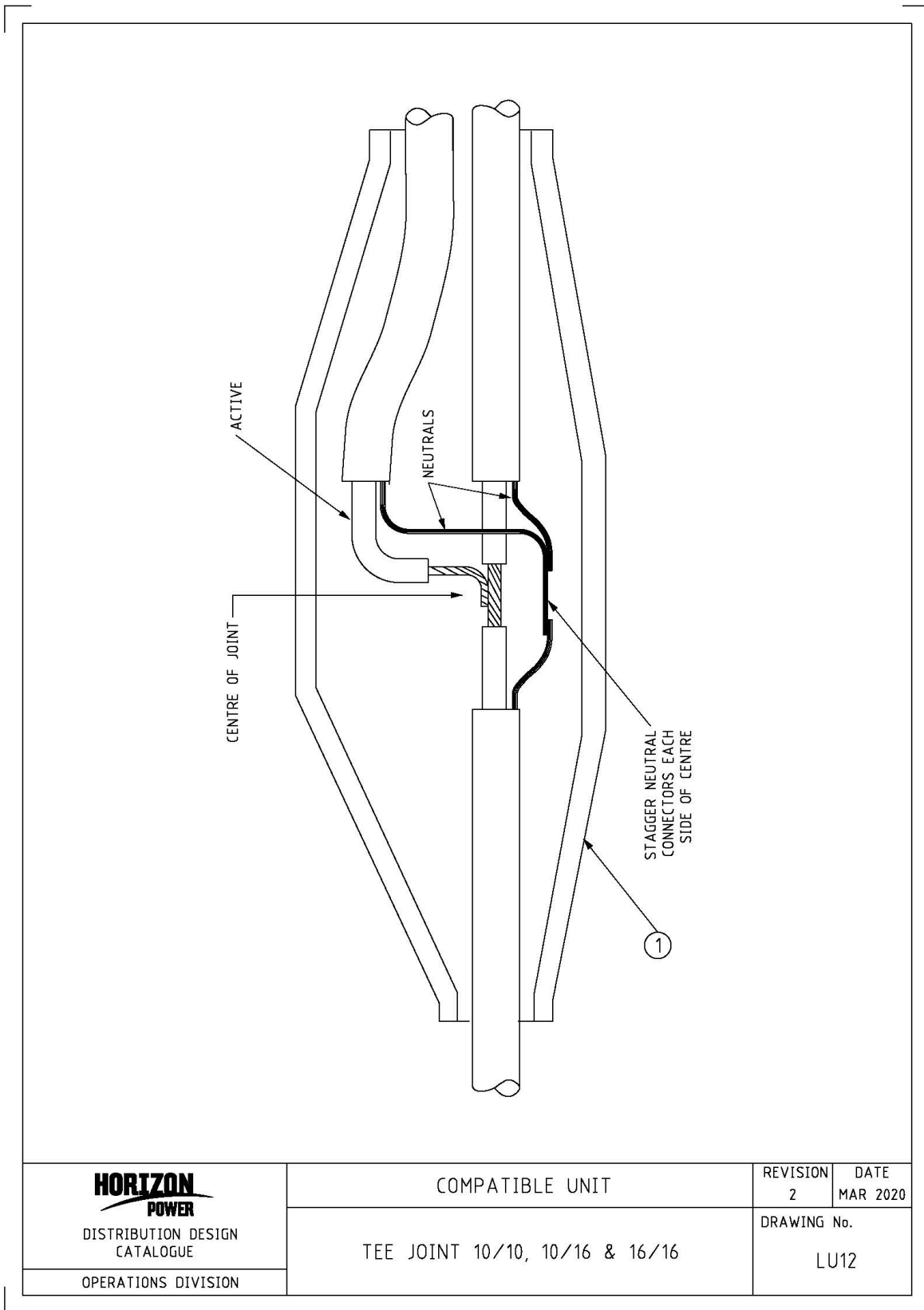


HORIZON POWER DISTRIBUTION DESIGN CATALOGUE OPERATIONS DIVISION	COMPATIBLE UNIT	REVISION 3	DATE MAR 2020
	UNIVERSAL PILLAR	DRAWING No. LU11	

PROTECTED

CU	CU DESCRIPTION
LU11	Universal pillar

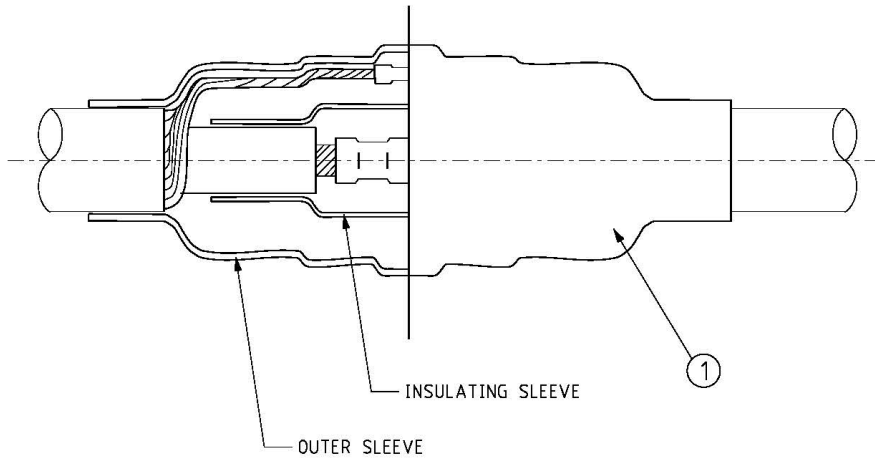
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FBH0855	Universal pillar	1	ea	
2	CE0135	Rod section 1.4 m long 15 mm diam. ALM CTE	1	ea	
3	CE0058	Clamp, double saddle type 13-15mm for earth rod	1	ea	



PROTECTED

CU	CU DESCRIPTION
LU12	Tee joint 10/10-10/16-16/16

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FJ0056	Joint Box – Tee for 10-16 sqmm 1ph cable	1	ea	Guroflex Resin included in Kit

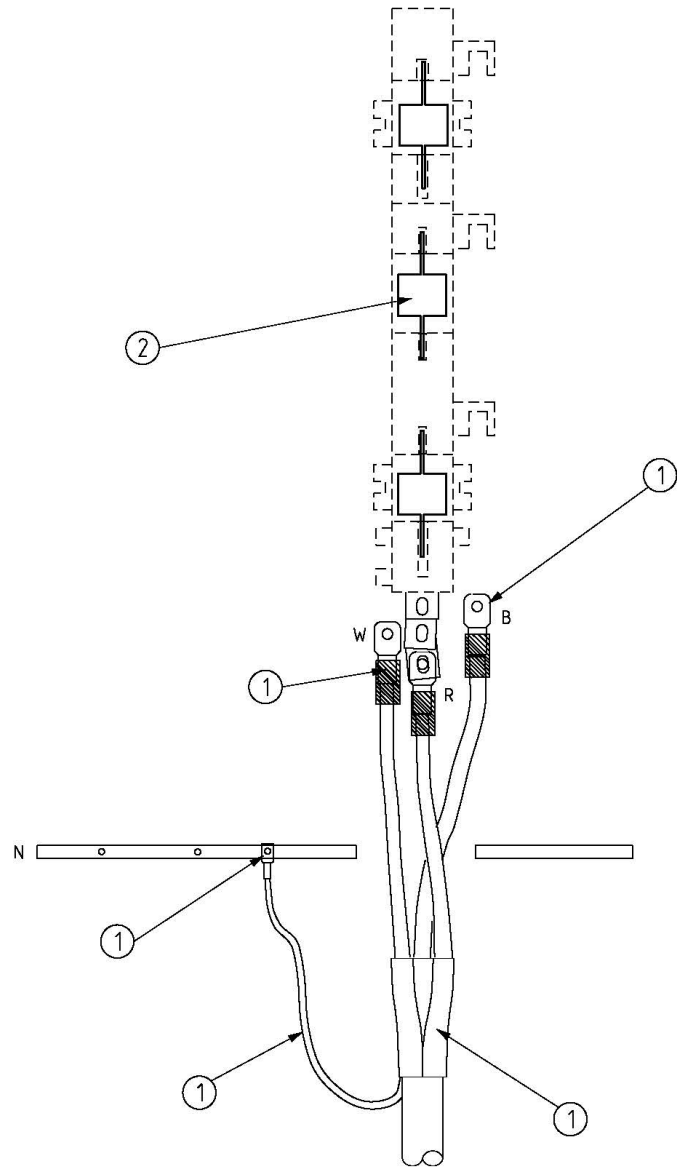



HORIZON POWER DISTRIBUTION DESIGN CATALOGUE OPERATIONS DIVISION	COMPATIBLE UNIT	REVISION 2	DATE 01/07/2020
	STRAIGHT JOINT 10/10, 10/16 & 16/16	DRAWING No. LU13	

PROTECTED

CU	CU DESCRIPTION
LU13	Straight joint 10/10-10/16-16/16

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FJ0237	Joint Box – Straight for 10-16 sqmm 1ph cable	1	ea	



 DISTRIBUTION DESIGN CATALOGUE OPERATIONS DIVISION	COMPATIBLE UNIT	REVISION 2	DATE MAR 2020
	CABLE TO FUSE SWITCH	DRAWING No. LU14	

PROTECTED

CU	CU DESCRIPTION
LU14_16/160A	Cable to fuse switch – 16 (Single phase) /160A Base

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FB0256	16sqmm M12 lug	2	ea	
	FE0032	2 finger heat shrink glove	1	ea	
	FE0071	Heat-shrink tubing	1	mtr	
2	GF0502	Fuse 20A	1	ea	

CU	CU DESCRIPTION
LU14_25/160A	Cable to fuse switch – 25/160A Base

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FL1442	25sqmm M8 lug	4	ea	
	FE0109	25sqmm Cable termination kit	1	ea	
2	GF0504	Fuse 63A	3	ea	

CU	CU DESCRIPTION
LU14_25/630A	Cable to fuse switch – 25/630A Base

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FL1449	25sqmm M12 lug	4	ea	
	FE0109	25sqmm Cable termination kit	1	ea	
2	GF2130	Fuse 100A	3	ea	

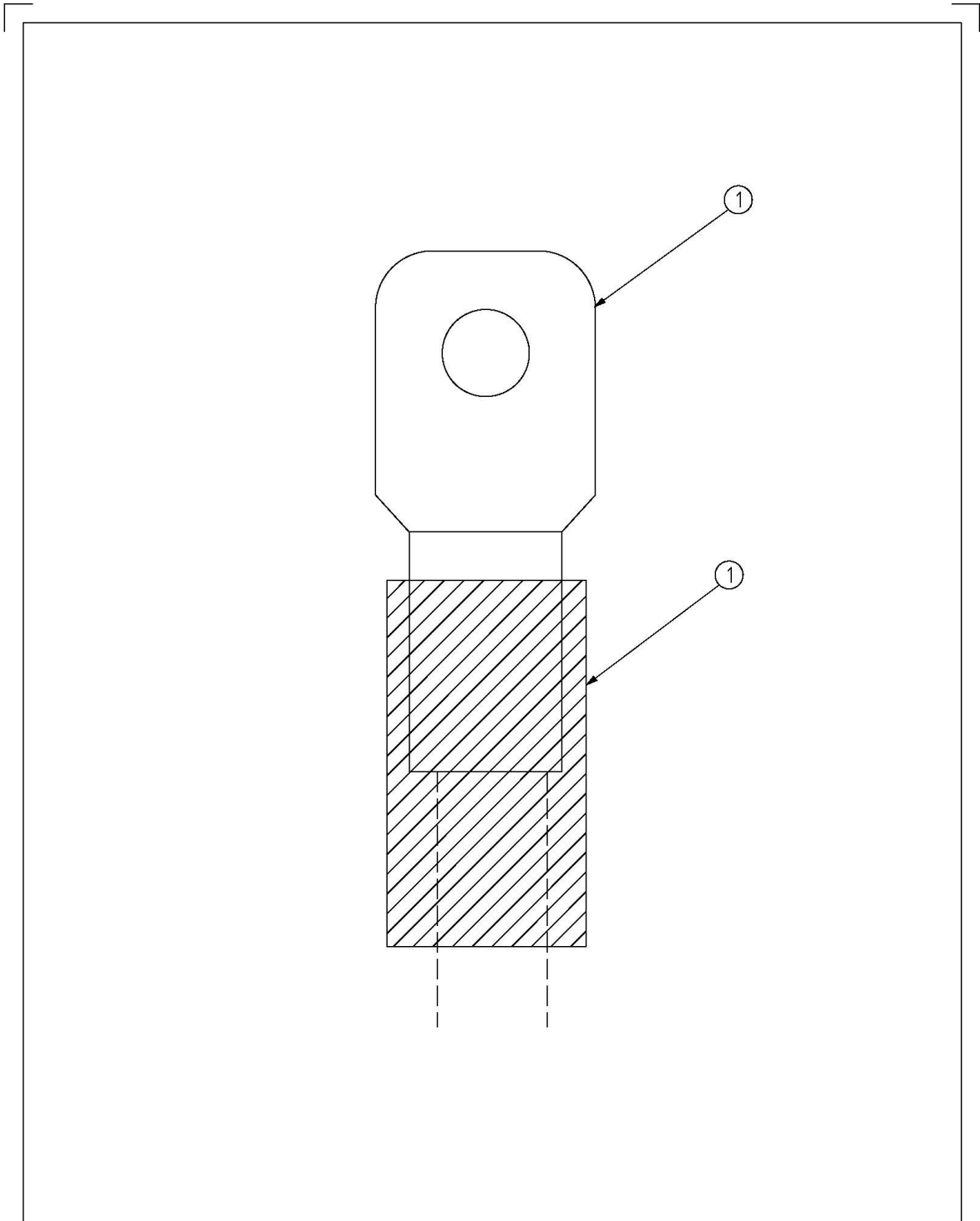
CU	CU DESCRIPTION
LU14_120	Cable to fuse switch - 120

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FJ0615	Termination Kit, for 120sqmm to 240sqmm cable	1	ea	
2	GF1096	Fuse 200A	3	ea	

PROTECTED

CU	CU DESCRIPTION
LU14_240	Cable to fuse switch – 185/240

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FJ0615	Termination kit for 120-240sqmm cable	1	set	
2	GF1101	Fuse link 315A	3	ea	



HORIZON POWER DISTRIBUTION DESIGN CATALOGUE OPERATIONS DIVISION	COMPATIBLE UNIT	REVISION 0	DATE 03/07/2020
	TRANSFORMER LV CABLE TERMINATION	DRAWING No. LU16	

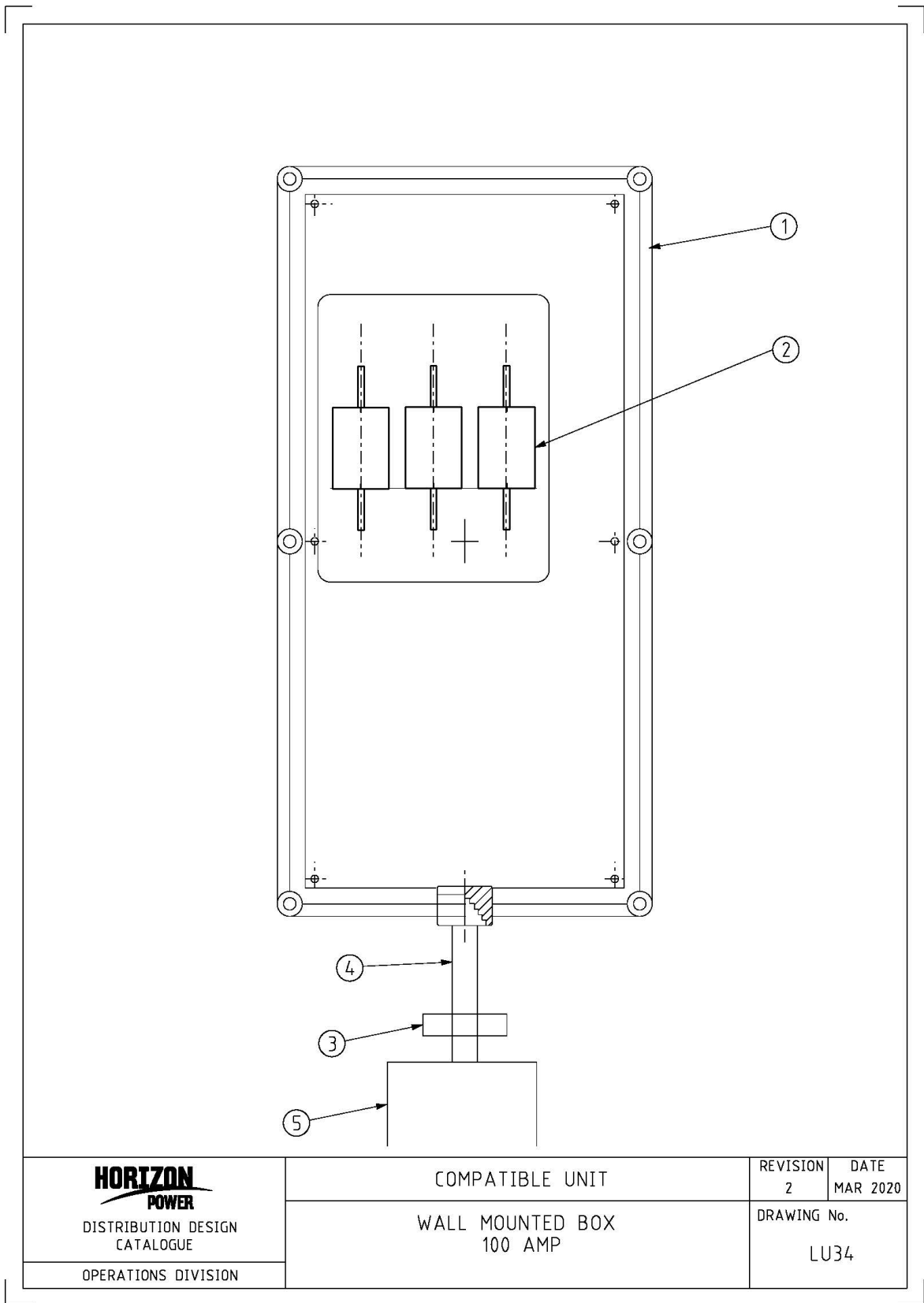
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CU	CU DESCRIPTION
LU16_400CU16	Transformer 400sqmm CU M16 Termination Kit

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FL0161	Termination Kit (2 per phase and 1 neutral with heat shrink)	1	ea	

CU	CU DESCRIPTION
LU16_400CU12	PENDA 400sqmm CU M12 Termination Kit

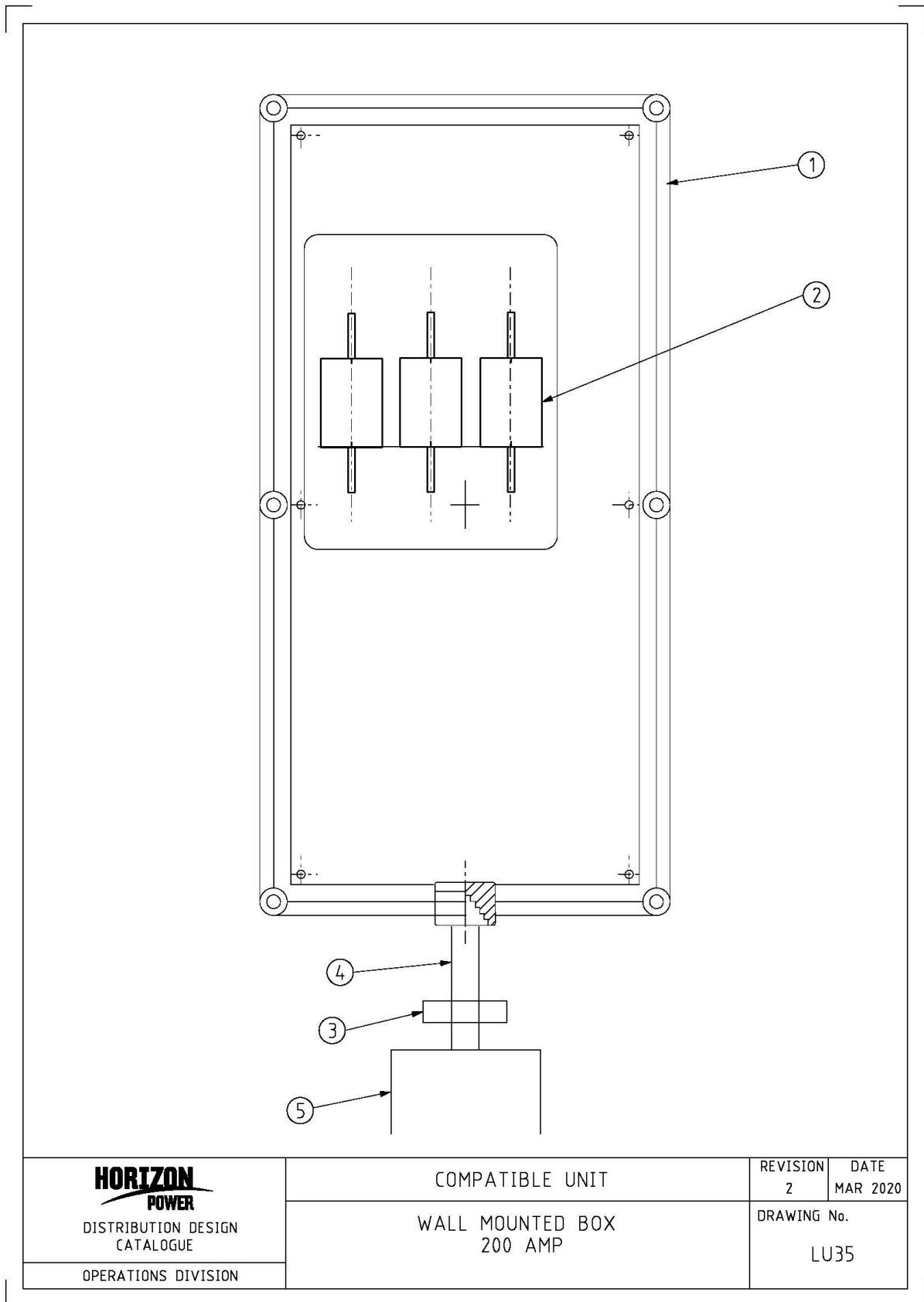
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FL0160	Termination Kit (2 per phase and 1 neutral with heat shrink)	1	ea	



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CU	CU DESCRIPTION
LU34	Wall mounted box – 100amp

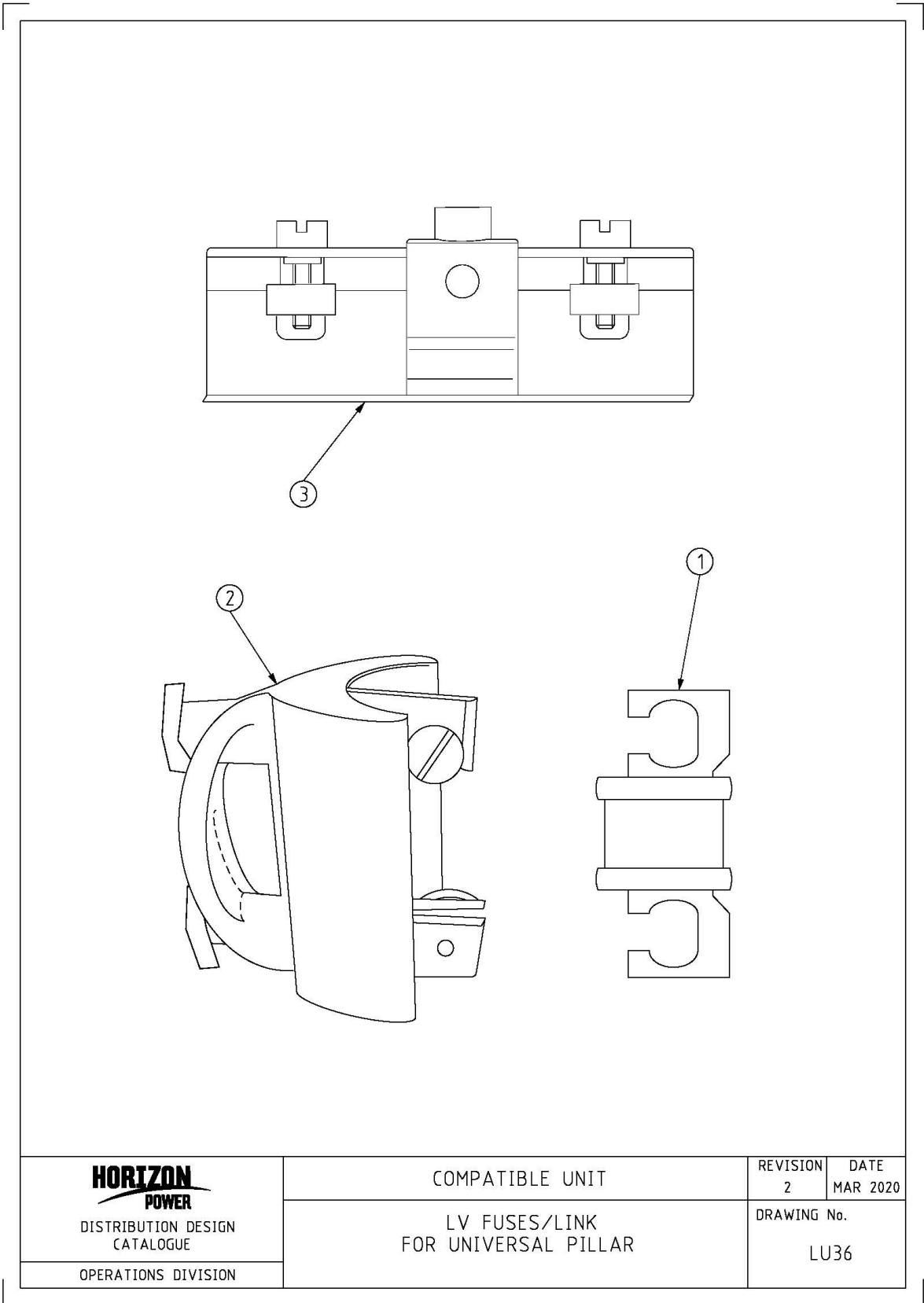
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FB0096	100 amp cutout	1	ea	
2	GF0505	fuse 100 amp	3	ea	
3	FM6310	saddle 50 mm	3	ea	
4	GC0010	Conduit grey PVC, 50 mm x 4 m long	1	lg	
5	HT6320	Cable protector steel, galvanised channel	1	ea	



PROTECTED

CU	CU DESCRIPTION
LU35	Wall mounted box – 200amp

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FB0097	200 amp cutout	1	ea	
2	GF0512	fuse 200 amp	3	ea	
3	FM6310	saddle 50 mm	3	ea	
4	GC0028	Conduit grey PVC, 80 mm x 4 m long	1	lg	
5	HT6320	Cable protector steel, galvanised channel	1	ea	



HORIZON POWER DISTRIBUTION DESIGN CATALOGUE OPERATIONS DIVISION	COMPATIBLE UNIT	REVISION 2	DATE MAR 2020
	LV FUSES/LINK FOR UNIVERSAL PILLAR	DRAWING No. LU36	

PROTECTED

CU	CU DESCRIPTION
LU36_63A	J-type fuse 63A and carrier for universal pillar

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GF1183	63A fuse	3	ea	
2	GF0260	fuse carrier	3	ea	

CU	CU DESCRIPTION
LU36_100A	J-type fuse 100A and carrier for universal pillar

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GF1185	100A fuse	3	ea	
2	GF0260	fuse carrier	3	ea	

CU	CU DESCRIPTION
LU36_160A	J-type fuse 160A and carrier for universal pillar

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GF1187	160A fuse	3	ea	
2	GF0260	fuse carrier	3	ea	

CU	CU DESCRIPTION
LU36_200A	J-type fuse 200A and carrier for universal pillar

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GF1188	200A fuse	3	ea	
2	GF0260	fuse carrier	3	ea	

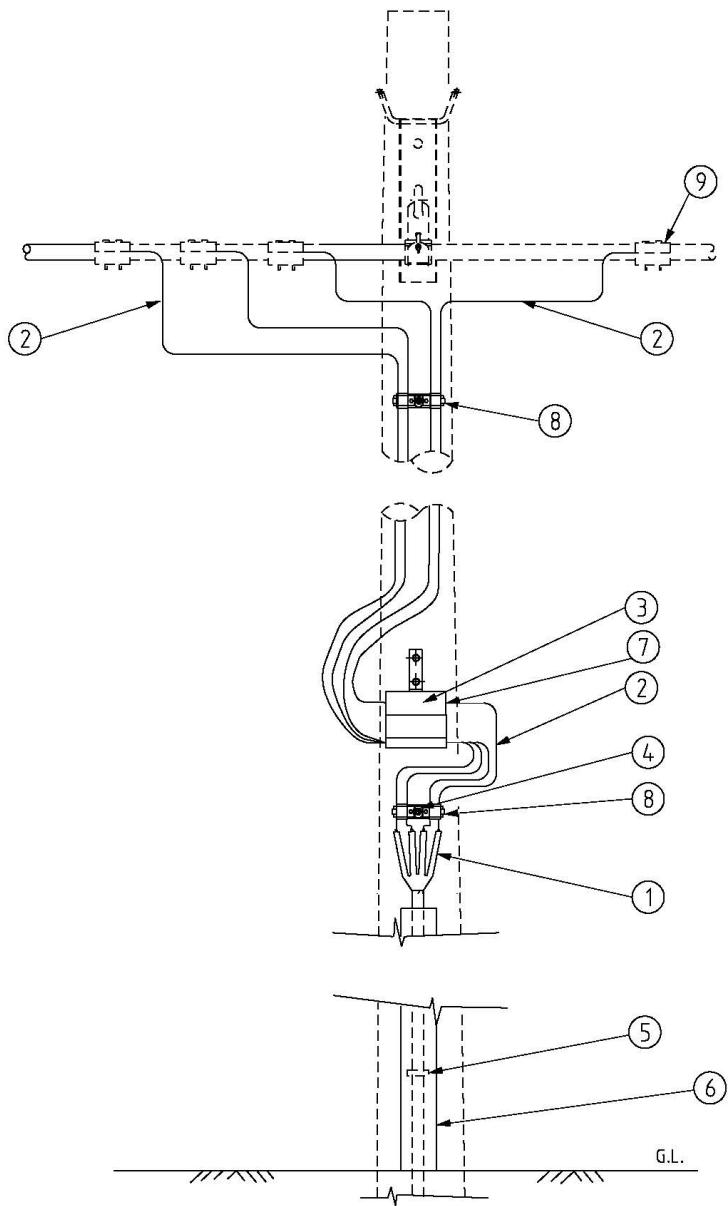
PROTECTED

CU	CU DESCRIPTION
LU36_315A	J-type fuse 315A and carrier for universal pillar

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GF1190	315A fuse	3	ea	
2	GF0260	fuse carrier	3	ea	


CU	CU DESCRIPTION
LU36_Link	Link 400 amp for universal pillar

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
3	GF1504	link 400A	3	ea	



NOTES:

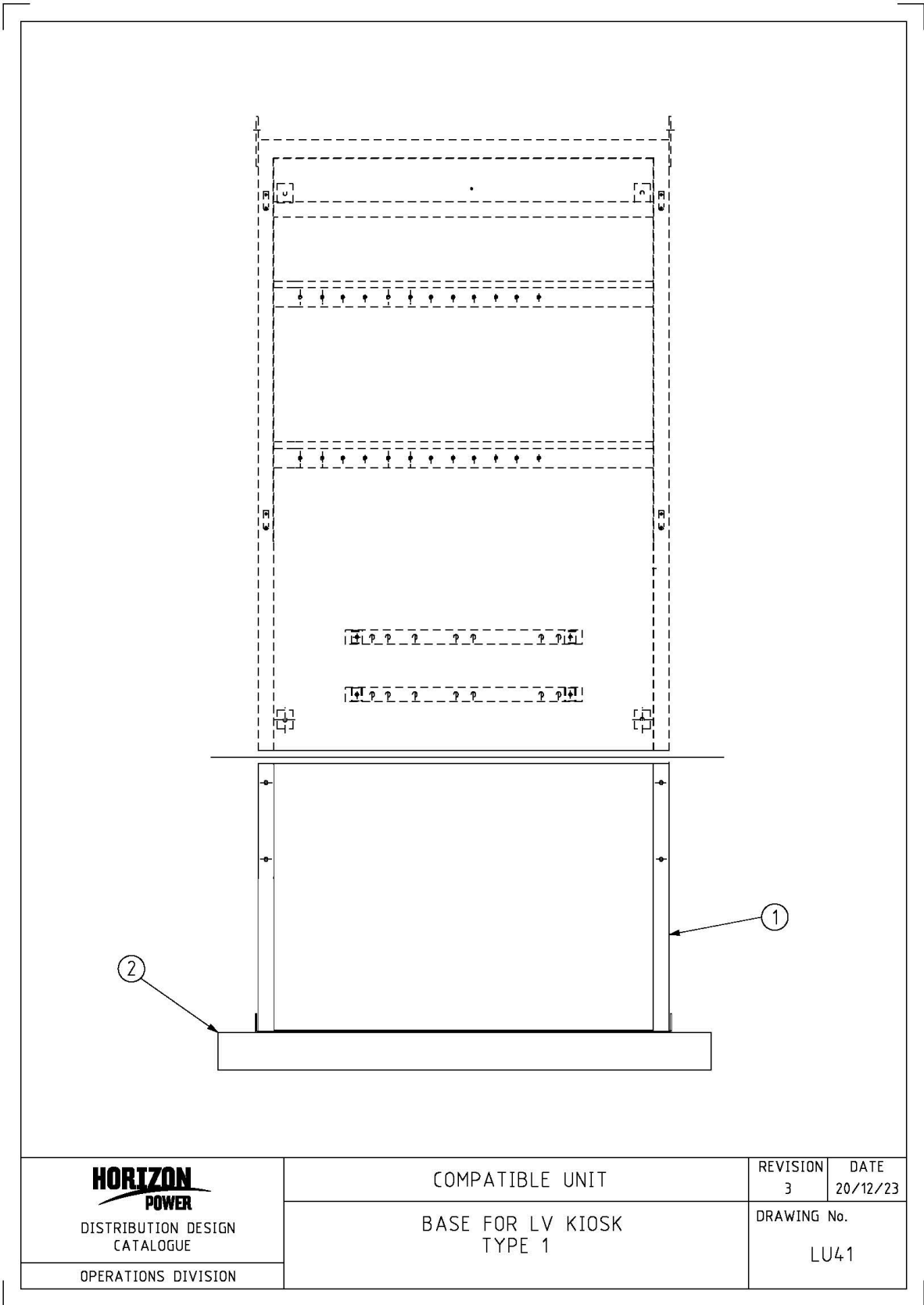
1) 4 x CN65 TO BE ORDER DEPENDING ON THE SIZE OF THE MAIN LINE ABC.

 DISTRIBUTION DESIGN CATALOGUE OPERATIONS DIVISION	COMPATIBLE UNIT	REVISION 2	DATE MAR 2020
	CABLE TO LVABC SWITCH	DRAWING No. LU37	

PROTECTED

CU	CU DESCRIPTION
LU37_240	Cable to LV ABC Switch for 240sqmm cable

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FC0499	Splice 95-150 ABC to 120-240sqmm	1	ea	
2	FT0150	Lead 150 ABC 4m long	1	ea	
3	GS0111	Fuse disconnecter (Rated 400A)	1	ea	
3	GF1101	Fuse link 315A	3	ea	
4	AB6733	Pole bolt – M16 x 400 mm long with nut and washers	4	ea	
5	CB3120	Cable saddle, galvanised	3	ea	
6	HT6320	Cable protector steel, galvanised channel	1	ea	
7	GS0109	Neutral block	1	ea	
8	CC0110	Suspension clamp – 150 ABC	4	ea	
8	AN2005	M16 nut galvanized	2	ea	
9		IPC – Select from CN65	4	ea	

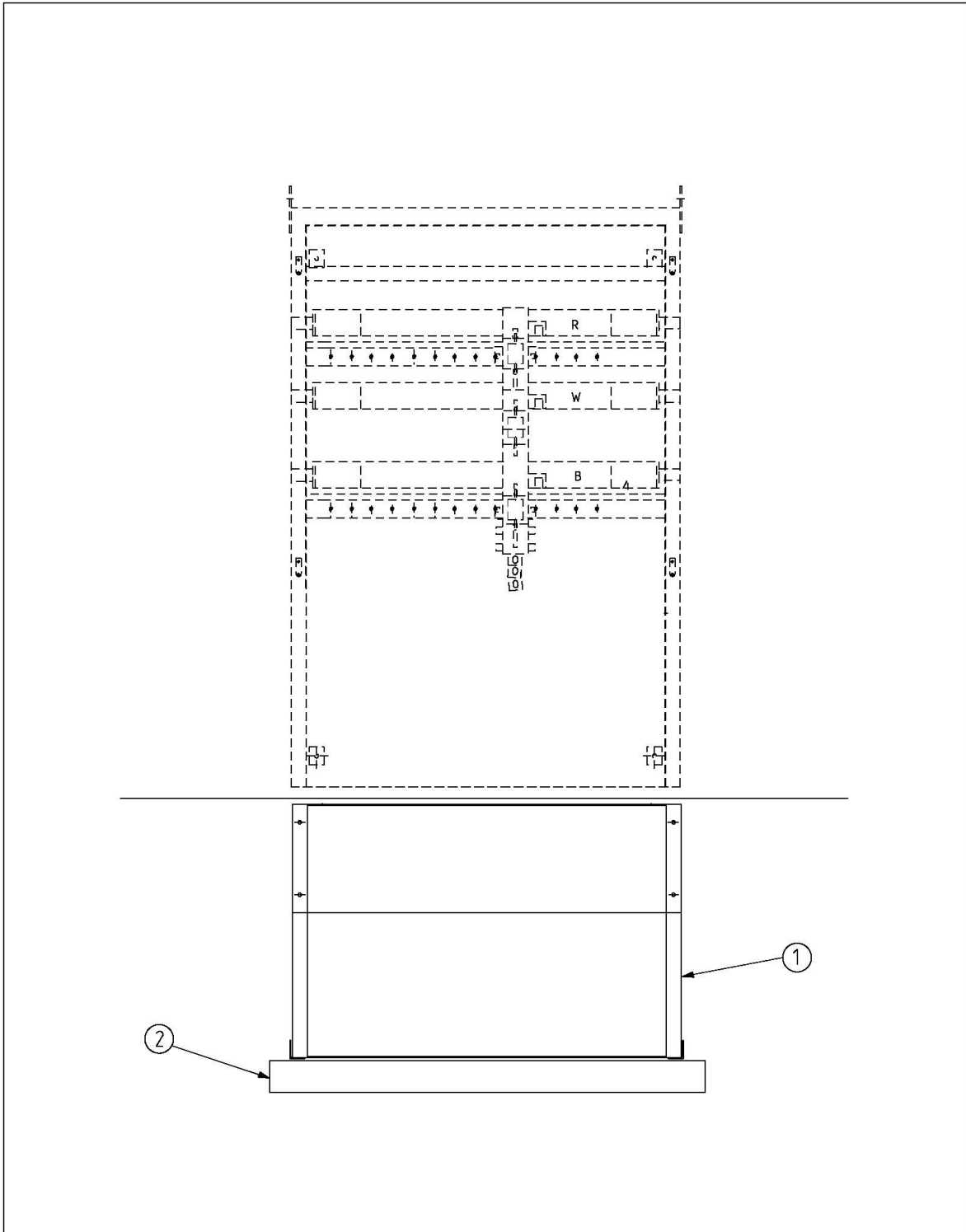



HORIZON POWER DISTRIBUTION DESIGN CATALOGUE OPERATIONS DIVISION	COMPATIBLE UNIT	REVISION 3	DATE 20/12/23
	BASE FOR LV KIOSK TYPE 1	DRAWING No. LU41	

PROTECTED

CU	CU DESCRIPTION
LU41	Base for LV kiosk Type 1

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CBH0492	PENDA Type 1 Kiosk Galvanised Stand and Base	1	ea	
2	CAH1018	Concrete Base for PENDA Type 1 and 2 Kiosk Stand Base	1	ea	

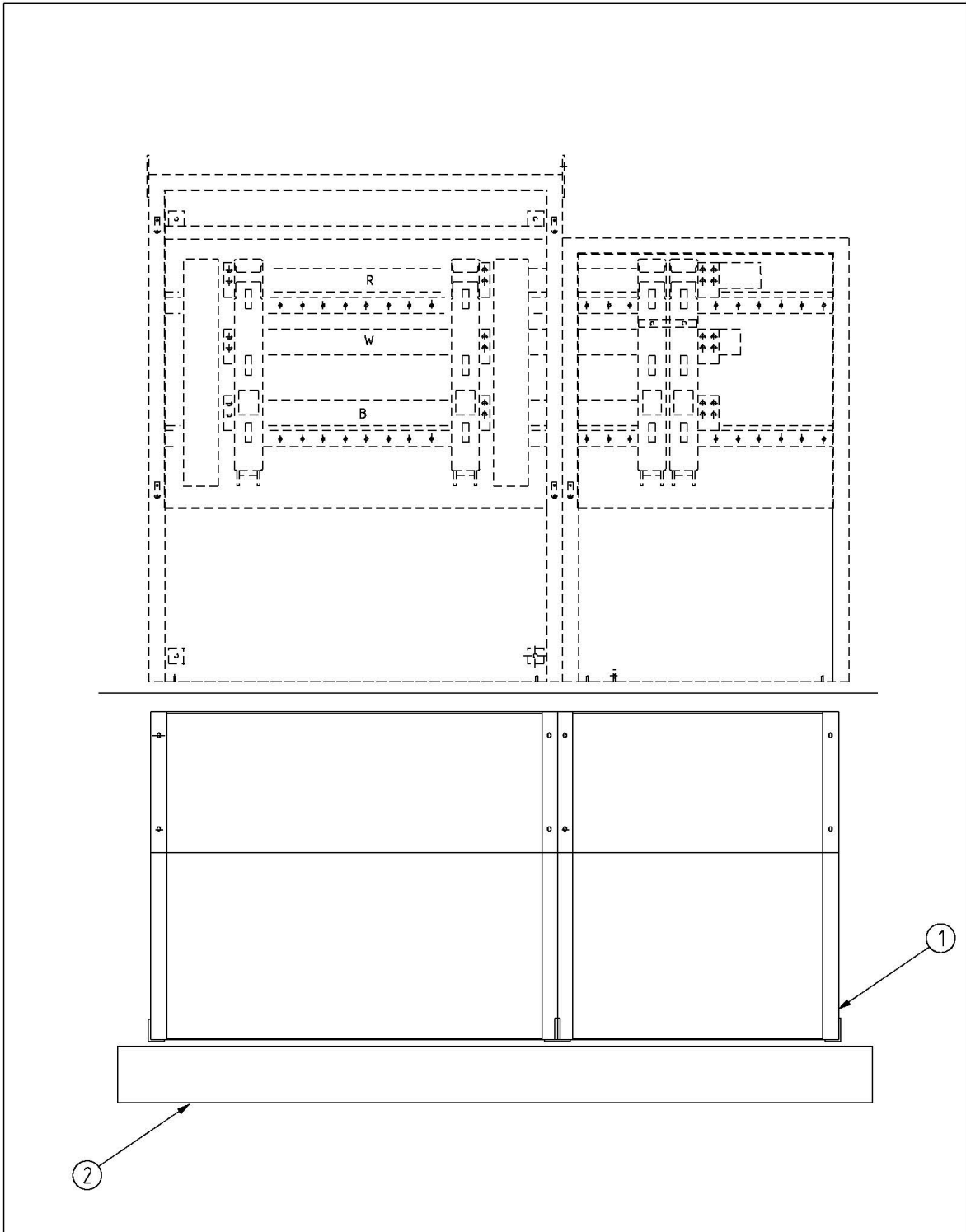



 DISTRIBUTION DESIGN CATALOGUE OPERATIONS DIVISION	COMPATIBLE UNIT	REVISION 3	DATE 20/12/23
	BASE FOR LV KIOSK TYPE 2	DRAWING No. LU42	

PROTECTED

CU	CU DESCRIPTION
LU42	Base for LV Kiosk Type 2

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CBH0493	PENDA Type 2 Kiosk Galvanised Stand and Base	1	ea	
2	CAH1018	Concrete Base for PENDA Type 1 and 2 Kiosk Stand Base	1	ea	

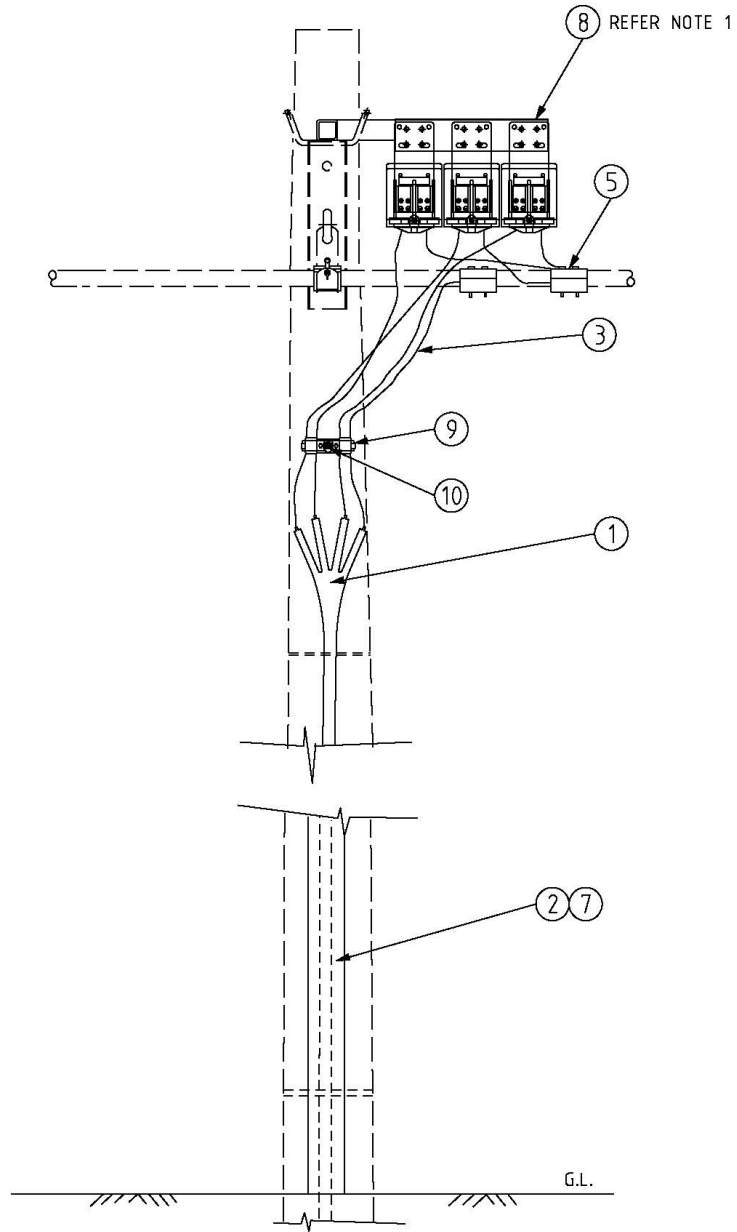


 DISTRIBUTION DESIGN CATALOGUE OPERATIONS DIVISION	COMPATIBLE UNIT	REVISION 3	DATE 20/12/23
	BASE FOR LV KIOSK TYPE 3	DRAWING No. LU43	

PROTECTED

CU	CU DESCRIPTION
LU43	Base for LV Kiosk Type 3

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	CBH0494	PENDA Type 3 Kiosk Galvanised Stand and Base	1	ea	
2	CAH1019	Concrete Base for PENDA Type 3 Kiosk Stand Base	1	ea	



NOTES.
 1. FOR FUSE MOUNTING DETAIL, REFER TO DISTRIBUTION CONSTRUCTION STANDARD A9

HORIZON POWER DISTRIBUTION DESIGN CATALOGUE OPERATIONS DIVISION	COMPATIBLE UNIT	REVISION 2	DATE MAR 2020
	CABLE TO LVABC 25SQMM XLPE	DRAWING No. LU50-1	

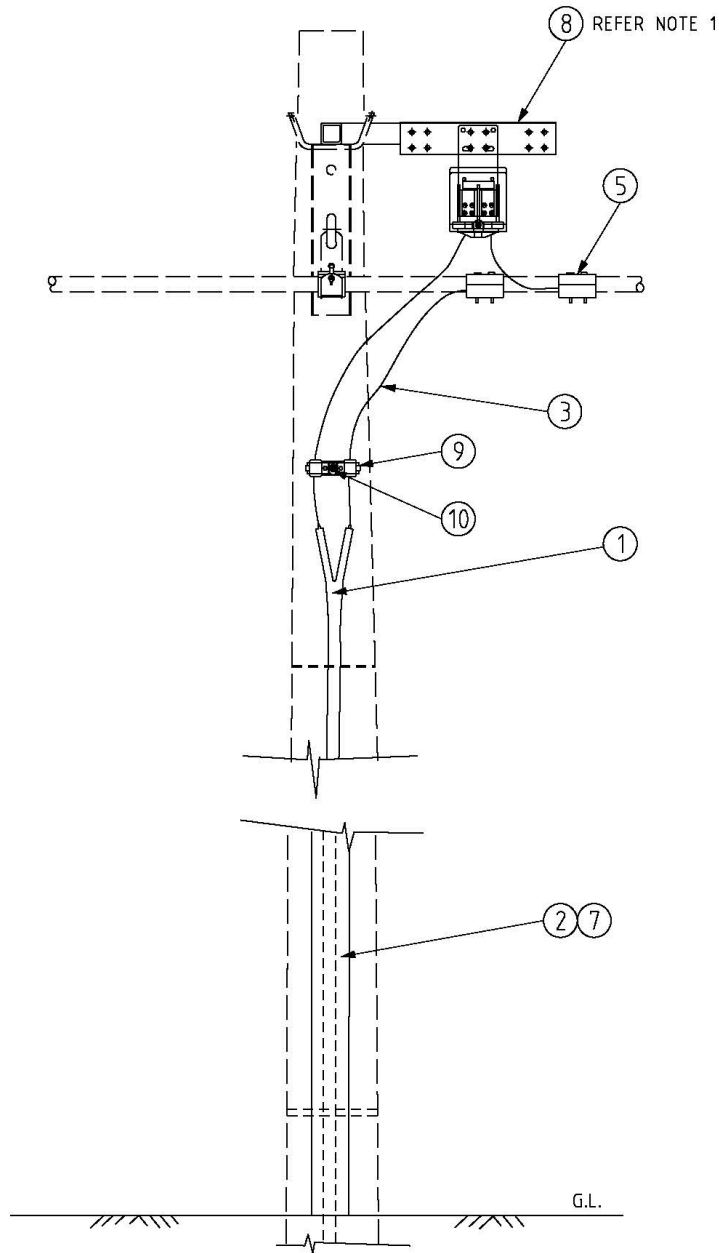
PROTECTED

CU	CU DESCRIPTION
LU50_25_95	Cable to LVABC – 25 to 95

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FE0031	Heat shrink glove 0.6/1kV, black polyolefin, 4-finger	1	ea	
2	GC0010	Conduit grey PVC, 50 mm x 4 m long	2	ea	
3	FE0071	Heat shrink 0.6/1kV, black polyolefin 15mm	5	mtr	
5	CC0088	Insulation piercing clamp 95 ABC Main to 2 x 35 service	4	ea	Max 2 cables
7	HT6320	Cable protector steel, galvanised channel	1	ea	
8	GF1801	Fuse holder 100 amp	3	ea	
	GF1947	Fuse cartridge 100 amp	3	ea	
	CB3019	Mounting T-bracket for fuse holders	1	ea	
	CB3054	Flowline fuse mounting bracket, steel galvanised	1	ea	
9	CC0101	Suspension clamp, 95 ABC	2	ea	
9	AN2005	M16 nut galvanized	2	ea	
10	AB6733	Pole bolt – M16 x 400 mm long with nut and washers	1	ea	


CU	CU DESCRIPTION
LU50_25_150	Cable to LVABC – 25 to 150

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FE0031	Heat shrink glove 0.6/1kV, black polyolefin, 4-finger	1	ea	
2	GC0010	Conduit grey PVC, 50 mm x 4 m long	2	ea	
3	FE0071	Heat shrink 0.6/1kV, black polyolefin 15mm	5	mtr	
5	CC0079	Insulation piercing clamp 150 ABC Main to 2 x 35 service	4	ea	Max 2 cables
7	HT6320	Cable protector steel, galvanised channel	1	ea	
8	GF1801	Fuse holder 100 amp	3	ea	
	GF1947	Fuse cartridge 100 amp	3	ea	
	CB3019	Mounting T-bracket for fuse holders	1	ea	
	CB3054	Flowline fuse mounting bracket, steel galvanised	1	ea	
9	CC0101	Suspension clamp, 95 ABC	2	ea	
9	AN2005	M16 nut galvanized	2	ea	
10	AB6733	Pole bolt – M16 x 400 mm long with nut and washers	1	ea	



NOTES:

1) FOR FUSE MOUNTING DETAIL, REFER TO DISTRIBUTION CONSTRUCTION STANDARD A9.

 DISTRIBUTION DESIGN CATALOGUE OPERATIONS DIVISION	COMPATIBLE UNIT	REVISION 2	DATE MAR 2020
	CABLE TO LVABC 10/16SQMM XLPE	DRAWING No. LU50-2	

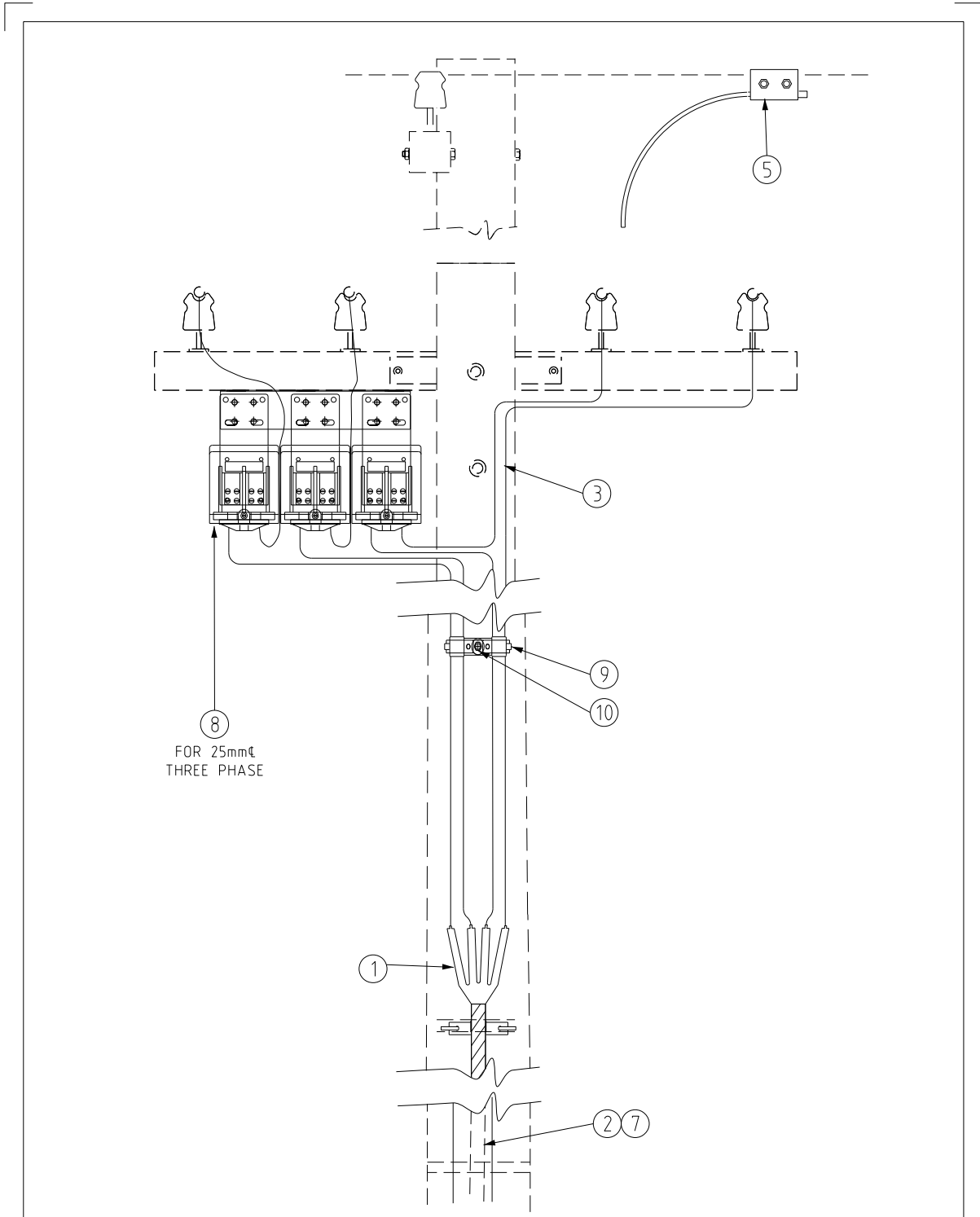
PROTECTED

CU	CU DESCRIPTION
LU50_SL_95	Street light cable to 95 ABC

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FE0032	Heat shrink glove 0.6/1kV, black polyolefin, 2-finger	1	ea	
2	GC7842	Conduit PVC 25 mm, 4 m long, grey	2	ea	
3	FE0071	Heat shrink 0.6/1kV, black polyolefin 15mm	4	mtr	
5	CC0088	Insulation piercing clamp 95 ABC Main to 2 x 35 service	2	ea	Max 2 cables
7	HT6320	Cable protector steel, galvanised channel	1	ea	
8	GF1801	Fuse holder 100 amp	1	ea	
	GF1940	Fuse cartridge 30 amp	1	ea	
	CB3019	Mounting T-bracket for fuse holders	1	ea	
	CB3054	Flowline fuse mounting bracket, steel galvanised	1	ea	
9	CC0101	Suspension clamp, 95 ABC	2	ea	
9	AN2005	M16 nut galvanized	2	ea	
10	AB6733	Pole bolt – M16 x 400 mm long with nut and washers	1	ea	

CU	CU DESCRIPTION
LU50_SL_150	Street light cable to 150 ABC

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FE0032	Heat shrink glove 0.6/1kV, black polyolefin, 2-finger	1	ea	
2	GC7842	Conduit PVC 25 mm, 4 m long, grey	2	ea	
3	FE0071	Heat shrink 0.6/1kV, black polyolefin 15mm	4	mtr	
5	CC0079	Insulation piercing clamp 150 ABC Main to 2 x 35 service	2	ea	Max 2 cables
7	HT6320	Cable protector steel, galvanised channel	1	ea	
8	GF1801	Fuse holder 100 amp	1	ea	
	GF1940	Fuse cartridge 30 amp	1	ea	
	CB3019	Mounting T-bracket for fuse holders	1	ea	
	CB3054	Flowline fuse mounting bracket, steel galvanised	1	ea	
9	CC0101	Suspension clamp, 95 ABC	2	ea	
9	AN2005	M16 nut galvanized	2	ea	
10	AB6733	Pole bolt – M16 x 400 mm long with nut and washers	1	ea	

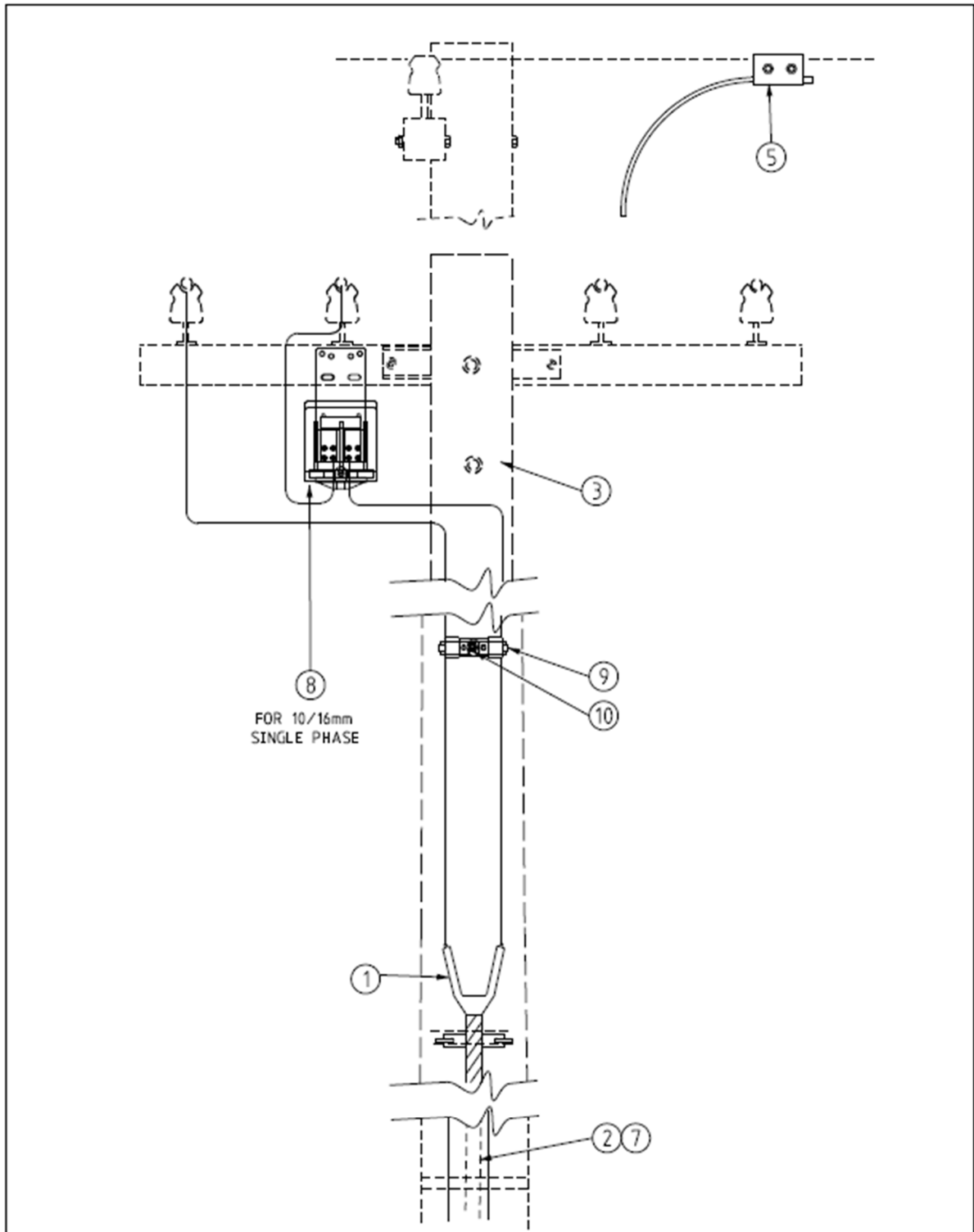


HORIZON POWER DISTRIBUTION DESIGN CATALOGUE OPERATIONS DIVISION	COMPATIBLE UNIT	REVISION 2	DATE MAR 2020
	CABLE TO LV BARE 25SQMM XLPE	DRAWING No. LU51-1	

PROTECTED

CU	CU DESCRIPTION
LU51_25	25sqmm CU cable to LV Bare Conductor

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FE0031	Heat shrink glove 0.6/1kV, black polyolefin, 4-finger	1	ea	
2	GC0010	Conduit grey PVC, 50 mm x 4 m long	2	ea	
3	FE0071	Heat shrink 0.6/1kV, black polyolefin 15mm	8	mtr	
5		PG Clamps - Select from CN9	4	ea	
7	HT6320	Cable protector steel, galvanised channel	1	ea	
8	GF1801	Fuse holder 100 amp	3	ea	
	GF1947	Fuse cartridge 100 amp	3	ea	
	CB3019	Mounting T-bracket for fuse holders	1	ea	
	CB3054	Flowline fuse mounting bracket, steel galvanised	1	ea	
9	CC0101	Suspension clamp, 95 ABC	2	ea	
9	AN2005	M16 nut galvanized	2	ea	
10	AB6733	Pole bolt – M16 x 400 mm long with nut and washers	1	ea	

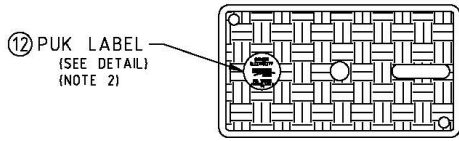


HORIZON POWER DISTRIBUTION DESIGN CATALOGUE OPERATIONS DIVISION	COMPATIBLE UNIT	REVISION 3	DATE 22/5/2024
	CABLE TO LV BARE 10/16SQMM XLPE	DRAWING No. LU51-2	

PROTECTED

CU	CU DESCRIPTION
LU51_SL	Street light cable to LV bare conductor

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FE0032	Heat shrink glove 0.6/1kV, black polyolefin, 2-finger	1	ea	
2	GC7842	Conduit PVC 25 mm, 4 m long, grey	2	ea	
3	FE0071	Heat shrink 0.6/1kV, black polyolefin 15mm	4	mtr	
5		PG Clamps – Select from CN9	2	ea	
7	HT6320	Cable protector steel, galvanised channel	1	ea	
8	GF1801	Fuse holder 100 amp	1	ea	
8	GF1940	Fuse cartridge 30 amp	1	ea	
9	CC0101	Suspension clamp, 95 ABC	2	ea	
9	AN2005	M16 nut galvanized	2	ea	
10	AB6733	Pole bolt – M16 x 400 mm long with nut and washers	1	ea	

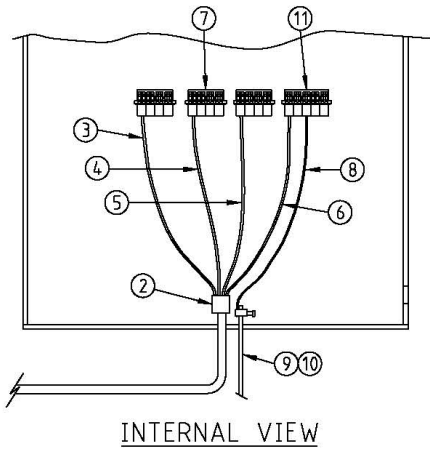
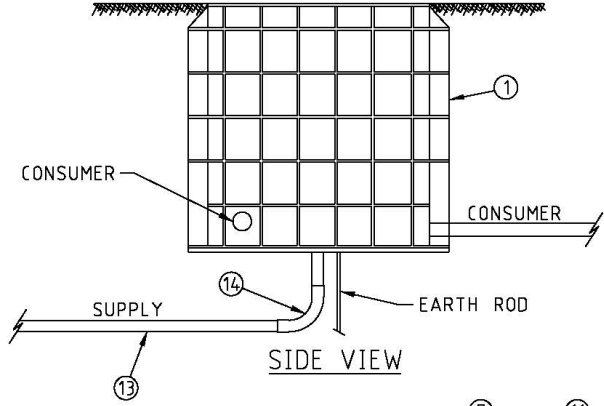


DANGER
ELECTRICITY

**HORIZON
POWER**

PH: 132351
AS3996.2006 CLASS B
5Kg

HP_PUK_FBH0052



NOTES:

1. PILLARS ARE THE PRIMARY AND PREFERRED METHOD OF SERVICE CONNECTIONS.
USE OF PITS ARE ONLY PERMITTED IN THE FOLLOWING CASES:
A. PILLARS CANNOT BE INSTALLED DUE TO ADVERSE SITE CONSTRAINTS AND ENVIRONMENTAL FACTORS.
B. AN EXISTING PILLAR LOCATION IS AT HIGH RISK OF REPEATED DAMAGE.
2. REPLACE VENDOR SUPPLIED PUK (LABEL DISC) WITH HORIZON POWER PUK STOCK CODE FBH0052.
3. 25mm² SERVICE CABLE (SUPPLY) FOR GELPORT CONNECTORS.

 DISTRIBUTION DESIGN CATALOGUE	COMPATIBLE UNIT	REVISION 4	DATE 20/10/2021
	LV SERVICE CABLE PIT 3 PHASE SUPPLY	DRAWING No. LU52	

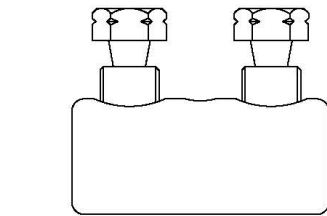
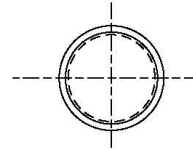
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CU	CU DESCRIPTION
LU52	Below Ground Service Pit

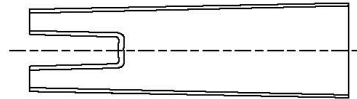
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FB0051	Service pit	1	ea	2 x 3ph 3 services + 1ph UMS
2	FE0109	4-finger glove and black heatshrink sleeving	1	ea	
3	FE0102	Red heatshrink sleeving	1	ea	
4	FE0103	White heatshrink sleeving	1	ea	
5	FE0104	Blue heatshrink sleeving	1	ea	
6	FE0071	Black heatshrink sleeving	1	ea	
7	CC0846	4-port gel port	3	ea	
8	EE1205	25sqmm earth cable	2	m	
9	CE0058	Double saddle earth clamp	1	ea	
10	CE0135	Earth rod	1	ea	
11	CC0851	5-port gel port	1	ea	
12	FBH0052	PUK	1	ea	
13	GC0024	40mm 4m length conduit (HD orange)	1	ea	
14	GC0479	40mm 90 deg. Bend conduit	1	ea	



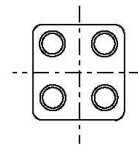
SEALING SLEEVES (X4)



MECHANICAL CONNECTOR (X4)




BREAKOUT (X1)



LOW VOLTAGE CABLE JOINT KIT

NOTE:

INCLUDING INSTALLATION INSTRUCTION AND CHECKLIST

 DISTRIBUTION DESIGN CATALOGUE OPERATIONS DIVISION	COMPATIBLE UNIT	REVISION 0	DATE 25/08/2022
	LOW VOLTAGE CABLE JOINT KIT 25SQMM XLPE - 16SQMM INSULATED CABLE	DRAWING No. LU53	

PROTECTED

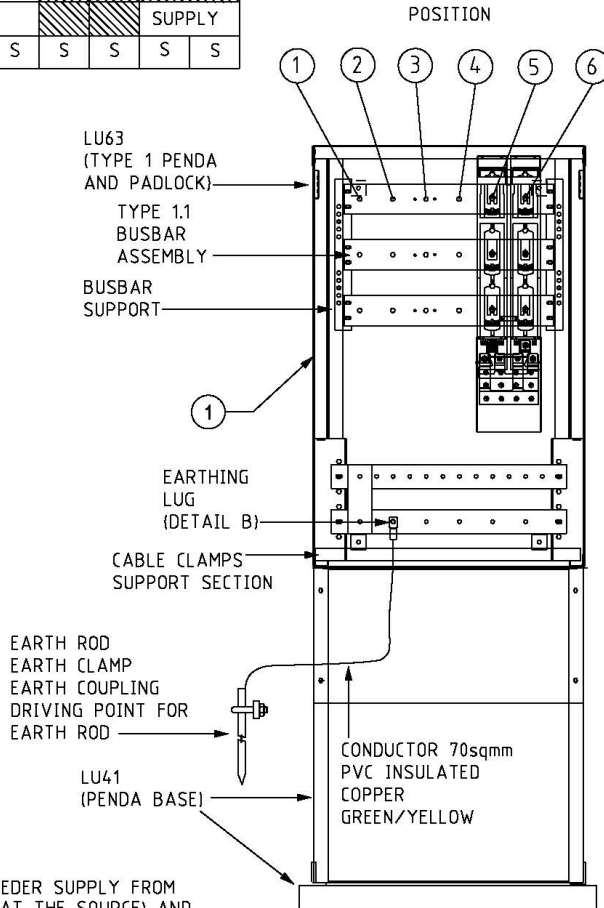
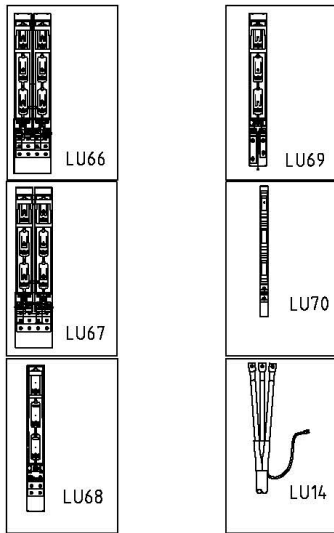
CU	CU DESCRIPTION
LU53	Low Voltage Cable Joint Kit

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FJH1625	Low Voltage Cable Joint Kit	1	Kit	
		1 x Breakout (Black) (502K046/S) 4 x Sealing Sleeves 250mm (Black) (MWTM-25/8-250) 4 x Mechanical Connector (BSLM-10/50) 1 x Installation Instruction (ESD-8261-AU-5/20) 1 x Check List (ESD-1573-AU)			

TYPE 1 PENDA LAYOUT

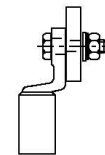
SWG	MAX FUSE	CU	1	2	3	4	5	6
TYPE 1.1 PENDA		LU63						
PENDA BASE		LU41						
160A FSD	63A NH00	LU70	///	///		///	///	///
630A FSD	1 X 400A NH2	LU69	C/S	C/S	C/S	C/S	C/S	C/S
910A FSD	1 X 630A NH3	LU68	///	///	///	///	///	///
1260A FSD	2 X 400A NH2	LU67	C		///	///	///	///
2000A SWD	LINKS SUPPLIED	LU66	C		///	///	SUPPLY	
FSD CABLE TERM	FUSES SUPPLIED	LU14	S	S	S	S	S	S

T = TRANSFORMER
 C = CONSUMER
 E = EMERGENCY RESPONSE GENERATOR
 L = LIGHTING CIRCUIT
 S = STREET CIRCUIT



NOTES:-

1. LU66 SWITCH CAN BE USED FOR THE DUAL FEEDER SUPPLY FROM THE UPSTREAM SUBSTATION (FEEDERS FUSED AT THE SOURCE) AND A LARGE CONSUMER.
2. 1 X LU14 NEEDED WITH EACH LU69 STREET FEEDER.
3. LU69 CAN BE USED FOR A STREET FEEDER OR A FUSED CONSUMER SUPPLY.
4. 2 X LU14 NEEDED WITH EACH LU66_TX WHEN DUAL FEEDER SUPPLY IS USED.
5. STANDARD DUAL FEEDER SUPPLY ARRANGEMENT SHOWN (HERITAGE SITES ONLY), DESIGNER MAY DESIGN AN ALTERNATIVE PENDA LAYOUT.
6. ORDER CE016 FOR HARD SOIL.
7. CONNECT 70sqmm PVC INSULATED COOPER CABLE (GREEN/YELLOW) TO EARTH ELECTRODE. INSTALL CABLE AND ROD 1200mm BELOW GL IN NEW SITES.
8. LU70 MAY HAVE UPTO 2 IN CIRCUIT POSITION 3.



DETAIL B

<p>DISTRIBUTION DESIGN CATALOGUE</p> <p>OPERATIONS DIVISION</p>	COMPATIBLE UNIT	REVISION 3	DATE 21/12/23
	TYPE 1 PENDA KIOSK	DRAWING No. LU63	

CU	CU DESCRIPTION
LU63	Type 1 PENDA Kiosk

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1		Type 1.1 PENDA	1	ea	
		Conductor 70mm pvc insulated copper green / yellow	3	metre	
		Earth rod	2	ea	
		Earth clamp	1	ea	
		Earth coupling	1	ea	
		Earthing Lug	1	ea	
		Driving point for earth rods	1	ea	
		Padlock	1	ea	
		Type 1.1 bus bar assembly	1	set	
		Bus bar supports	2	ea	
		Cable clamp support section	2	ea	

Use the below *Low Voltage Board Order/Quote/Material List (DM# 16874336)* to order

LV Board Order / Quote / Materials List		WP EDM # 24790582 v (4)						
Project Name / Location:								
Western Power Reference No:								
Required By Date:								
Work Order:								
Purchase Order:								
Requisition Number:								
Client:								
Notes: (Delivery Instructions, Contact Details etc)								
Requestors Details: (Email & Contact Number)								
Delivery Code:								
Quotation: \$227.78		Quotation + 10% GST: \$250.56						
PLEASE ORDER ALL MATERIALS ON PENDA MATERIAL LIST TAB								
Customer Requirements								
CU	Switchgear	Circuit Number						Total Quantity Required
		1	2	3	4	5	6	
LU63	Type 1.1 PENDA							0
LU41	Base for LV kiosk type 1							0
LU70	160A Fused switch disconnect							0
LU69	630A Fused switch disconnect							0
LU68	910A Fused switch disconnect							0
LU67	1200A Fused switch disconnect							0
LU66_Curt	2000A Switch disconnect							0

Notes:
 1. Input Quantity Required (add 1 into each circuit position)
 2. Only one switchgear panel per circuit
 3. Fuses provided with cable termination CU# (see LU14)
 4. Cable and termination to be ordered separately
 5. LU70 may have up to 2 in circuit position 3

SWG	MAX FUSE	CU	1	2	3	4	5	6
TYPE 1.1 PENDA		LU63						
PENDA BASE		LU41						
630 FSD	1 X 400A NH2	LU69	CIS	CIS	CIS	CIS	CIS	CIS
910A FSD	1 X 630A NH2	LU68						
1200A FSD	2 X 400A NH2	LU67	C					
2000A SWD	LN66 SUPPLIED	LU66	C				SUPPLY	
FSD CABLE TERM	FUSES SUPPLIED	LU14	S	S	S	S	S	S

T= TRANSFORMER
 C= CONSUMER
 E= EMERGENCY RESPONSE GENERATOR

L= LIGHTING CIRCUIT
 S= STREET CIRCUIT

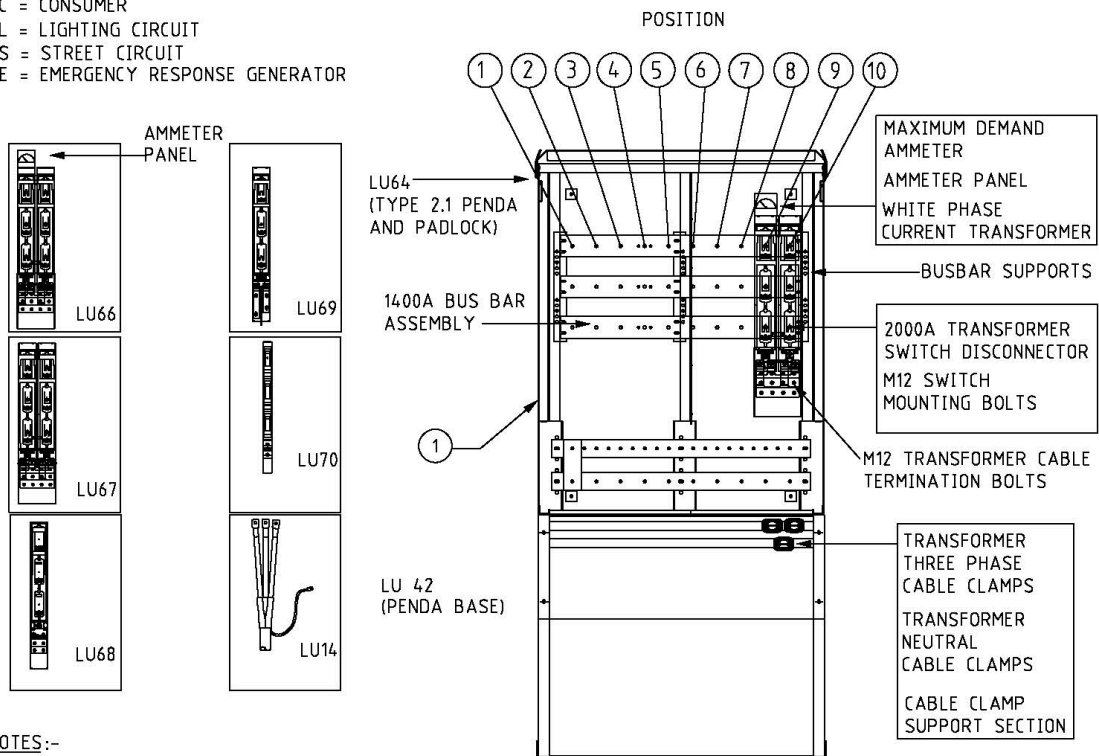
Notes:

- Base for LV kiosk Type 1 (LU41) required to be selected in order form.
- Use the PENDA ordering form (DM# 16874336) following the notes to configure the LV switchgear required for the design. Submit the form to Western Power for a quotation and then enter pricing manually into the Ellipse CU. There are no pre-populated materials and costs for PENDA in this CU.
- LU70 is suitable for installation within LU63. Order LU70 where required.
- LU70 may have up to 2 in circuit position 3.

TYPE 2.1 PENDA LAYOUT


SWG	MAX FUSE	CU	1	2	3	4	5	6	7	8	9	10
TYPE 2.1 PENDA		LU64										
PENDA BASE		LU42										
160A FSD	1 X 63A DIN00	LU70				L L						
630 FSD	1 X 400A NH2	LU69	C/S	C/S	C/S	C/S	C/S	C/S	C/S			
910A FSD	1 X 630A NH3	LU68								E		
1260A FSD	2 X 400A NH2	LU67	C		C							
2000A SWD	LINKS SUPPLIED	LU66	C1									T1
FSD CABLE TERM	FUSES SUPPLIED	LU14	S	S	S	L/S	S	S	S			
TX CABLE TERM	TX MCCB	LU16										T1

T = TRANSFORMER
 C = CONSUMER
 L = LIGHTING CIRCUIT
 S = STREET CIRCUIT
 E = EMERGENCY RESPONSE GENERATOR



NOTES:-

1. LU66 CAN BE USED FOR THE TRANSFORMER AND CONTIGUOUS CONSUMER.
2. EVERY INSTALLATION SHALL INCLUDE AN ERG CONNECTION LU68.
3. 2 x LU70 OR 1 x LU69 CAN BE USED IN POSITION 4.
4. 1 X LU14 NEEDED WITH EACH LU69 STREET FEEDER OR LU70 LIGHTING CIRCUIT.
5. 1 X LU16 NEEDED WITH EACH LU66_TX IN PENDA AND 1 X LU16 FOR LU59 (NON-MPS).
6. LU66_TX WILL DEFAULT TO POSITIONS 9 & 10 UNLESS POSITION 1 & 2 IS SPECIFIED BY THE DESIGNER.
7. STANDARD PENDA LAYOUT SHOWN. DESIGNER MAY DESIGN AN ALTERNATIVE PENDA LAYOUT.
8. NO GANGED FSD OR SWD PERMITTED SPANING POSITIONS 5 & 6 OR 6 & 7.
9. DESIGNER TO USE LU64_0 FOR OUTDOOR INSTALLATIONS.

 DISTRIBUTION DESIGN CATALOGUE OPERATIONS DIVISION	COMPATIBLE UNIT	REVISION 1	DATE 14/10/2021
	TYPE 2.1 PENDA KIOSK	DRAWING No. LU64	

CU	CU DESCRIPTION
LU64_I	Type 2.1 PENDA Kiosk – I (Indoor)

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1		Type 2.1 PENDA	1	ea	
		Maximum demand ammeter	1	ea	
		Ammeter panel	1	ea	
		White phase current transformer	1	ea	
		Bus bar supports	3	ea	
		1400A bus bar assembly	1	ea	
		2000A transformer switch disconnecter	1	ea	
		M12 switch mounting bolts	2	kit	
		M12 transformer cable termination bolts	2	kit	
		Transformer 3 phase cable clamps (per phase)	2	kit	
		Transformer neutral cable clamps	1	ea	
		Cable clamp support section	2	ea	

Use the below *Low Voltage Board Order/Quote/Material List (DM# 16874336)* to order

LV Board Order / Quote / Materials List										WP EDM # 24790582 v(3)				
Project Name / Location:														
Western Power Reference No:														
Required By Date:														
Work Order:														
Purchase Order:														
Requisition Number:														
Client:														
Notes: (Delivery Instructions, Contact Details etc)														
Requestor's Details: (Email & Contact Number)														
Delivery Code:														
Quotation: \$227.78					Quotation + 10% GST: \$250.56									
PLEASE ORDER ALL MATERIALS ON PENDA MATERIAL LIST TAB														
Customer Requirements														
	CU	Switchgear	1	2	3	4	5	6	7	8	9	10	Total Quantity Required	
Type 2.1 PENDA	LU64_I	Type 2.1 PENDA (Indoor)											•	Notes: 1. Input Quantity Required (add 1 into each circuit position) 2. Only one switchgear panel per circuit 3. LUT0 must have one tick in circuit position 4 4. Force provide dumb cable termination OLV (see LU14) 5. Transformer cable and termination to be ordered separately. Length to be determined by designer. Use 2 cables per phase and 1 for neutral for all size transformers. See compatible unit OMS0 and LUT6 in this SDC. Use 4000 OLV PENDA. 6. LU64 is supplied with transformer switch (LU64_TX) and it to be fitted into position #10 unless specified otherwise by the designer. LU64 is added automatically when LU64_TX is selected. 7. LUT0 is added automatically when LU64_I is selected. 8. LU64 is added in par 3 or 9 depending on what size LU64_TX
	LU64_O	Type 2.1 PENDA (Outdoor)											•	
	LU42	Base for LV kiosk type 2											•	
	LU70	1600A Fused switch disconnecter											•	
	LU69	630A Fused switch disconnecter											•	
	LU68	910A Fused switch disconnecter											•	
	LU67	1250A Fused switch disconnecter											•	
	LU64_Cut	2000A Switch disconnecter											•	
LU64_TX	2000A Switch disconnecter											•		

TYPE 2.1 PENDA LAYOUT

SWG	MAX FUSE	CU	1	2	3	4	5	6	7	8	9	10
TYPE 2.1 PENDA		LU64										
PENDA BASE		LU42										
600A FSD	1 X 60A DIN 02	LU70										
630 FSD	1 X 400A NH2	LU69	C/S	C/S	C/S	C/S	C/S	C/S	C/S	C/S		
910A FSD	1 X 400A NH2	LU68										
1250A FSD	2 X 400A NH2	LU67	C									
2000A SWD	1000A SUPP 02	LU64	C									
FSD CABLE TERM	1000A SUPP 02	LU14	1	1	1	1	1	1	1	1	1	1
TX CABLE TERM	1000A SUPP 02	LU16										

T = TRANSFORMER L = LIGHTING CIRCUIT E = EMERGENCY RESPONSE GENERATOR
C = CONSUMER S = STREET CIRCUIT

POSITION

NOTES-

- LU68 CAN BE USED FOR THE TRANSFORMER AND CONTIGUOUS CONSUMER
- EVERY INSTALLATION SHALL INCLUDE AN ERS CONNECTION LU68
- 2 X LUT0 OR 1 X LUT6 CAN BE USED IN POSITION 4
- 1 X LU14 NEEDED WITH EACH LU68 STREET FEEDER OR LUT0 LIGHTING CIRCUIT.
- 1 X LU16 NEEDED WITH EACH LU67 TX IN PENDA AND 1 X LU16 FOR LUT6 (NON-APP)
- LU64_TX WILL DEFAULT TO POSITIONS 8 & 10 UNLESS POSITION 1 & 2 IS SPECIFIED BY THE DESIGNER.
- STANDARD PENDA LAYOUT SHOWN. DESIGNER MAY DESIGN AN ALTERNATE PENDA LAYOUT.
- NO GANGED FSD OR SWD PERMITTED SPANNING POSITIONS 5 & 6 OR 6 & 7.

Notes:

- LU42- Base for LV kiosk Type 2 required to be selected in order form.
- Use the PENDA ordering form (DM# 16874336) following the notes to configure the LV switchgear required for the design. Submit the form to Western Power for a quotation and then enter pricing manually into the Ellipse CU. There are no pre-populated materials and costs for PENDA in this CU.

CU	CU DESCRIPTION
LU64_0	Type 2.1 PENDA Kiosk - O (Outdoor)

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY Rqd	UNIT OF MEASURE	REMARKS
1		Type 2.1 PENDA	1	ea	
		Maximum demand ammeter	1	ea	
		Ammeter panel	1	ea	
		White phase current transformer	1	ea	
		Bus bar supports	3	ea	
		1400A bus bar assembly	1	ea	
		2000A transformer switch disconnecter	1	ea	
		M12 switch mounting bolts	2	kit	
		M12 transformer cable termination bolts	2	kit	
		Transformer 3 phase cable clamps (per phase)	2	kit	
		Transformer neutral cable clamps	1	ea	
		Cable clamp support section	2	ea	
		Sun shield for Type 2.1 PENDA	1	ea	
		Padlock	1	ea	

Use the below *Low Voltage Board Order/Quote/Material List (DM# 16874336)* to order

LV Board Order / Quote / Materials List		w/PEOM # 24790582 v.1(3)											
Project Name / Location:													
Western Power Reference No:													
Required By Date:													
Work Order:													
Purchase Order:													
Requestion Number:													
Client:													
Notes:													
(Delivery Instructions, Contact Details etc)													
Requestors Details:													
(Email & Contact Number)													
Delivery Code:													
Quotation: \$227.78		Quotation + 10% GST:		\$250.56									
PLEASE ORDER ALL MATERIALS ON PENDA MATERIAL LIST TAB													
Customer Requirements													
CU	Switchgear	Circuit Number										Total Quantity Required	
		1	2	3	4	5	6	7	8	9	10		
LU44_J	Type 2.1 PENDA (Indoor)											•	Notes: 1. Input Quantity Required (add line per circuit partition) 2. Only one switchgear panel per circuit 3. LU70 may have up to 2 in circuit partition 4 4. For one provided with cable termination CIP (see LU14) 5. Transformer cables and terminations to be ordered separately. Lengths to be determined by designer. Use 2 cables per phase and 1 for neutral for utility transformer. See company with CNS and LVMS in the DDC. Use 400 Cu on PENDA. 6. LU42 supplied with transformer switch (LU42_TX) on delivery. This is a separate 150W order per circuit as ordered by the designer. LU42 is added automatically when LU44 (or O) is selected. 7. LU70 is added automatically when LU4_C1 is selected. 8. LU42 is added in part 3 or 5 depending on what LU46_TX
LU44_O	Type 2.1 PENDA (Outdoor)											•	
LU42	Base for LV kiosk type 2											•	
LU70	1400A Fused switch disconnecter											•	
LU69	4300A Fused switch disconnecter											•	
LU65	9100A Fused switch disconnecter											•	
LU67	12600A Fused switch disconnecter											•	
LU66_Dual	2000A Switch disconnecter											•	
LU66_TX	2000A Switch disconnecter											•	

TYPE 2.1 PENDA LAYOUT

SWG	MAX FUSE	CU	1	2	3	4	5	6	7	8	9	10
TYPE 2.1 PENDA		LU42										
PENDA BASE		LU42										
160A FSD	1 X 160A SWD	LU70										
430A FSD	1 X 430A SWD	LU69	C/S	C/S	C/S	C/S	C/S	C/S	C/S	C/S		
910A FSD	1 X 910A SWD	LU65										
1260A FSD	2 X 1260A SWD	LU67	C	C								
2000A SWD	2000A SWD	LU66	C1									
FSD CABLE TERM	FUSED SWITCH	LU14	S	S	S	S	S	S	S	S		
TX CABLE TERM	TX	LU66										

T = TRANSFORMER L = LIGHTING CIRCUIT E = EMERGENCY RESPONSE GENERATOR
 C = CONSUMER S = STREET CIRCUIT

POSITION

NOTES:-

- LU42 CAN BE USED FOR THE TRANSFORMER AND CONTIGUOUS CONSUMER
- EVERY INSTALLATION SHALL INCLUDE AN ERO CONNECTION LU42
- 2 X LU70 OR 1 X LU69 CAN BE USED IN POSITION 4
- 1 X LU14 NEEDED WITH EACH LU69 STREET FEEDER OR LU70 LIGHTING CIRCUIT.
- 1 X LU14 NEEDED WITH EACH LU65 TX IN PENDA AND 1 X LU14 FOR LU65 (NO MPAS).
- LU66_TX WILL DEFAULT TO POSITIONS 9 & 10 UNLESS POSITION 1 & 2 IS SPECIFIED BY THE DESIGNER.
- STANDARD PENDA LAYOUT SHOWN. DESIGNER MAY DESIGN AN ALTERNATIVE PENDA LAYOUT.
- NO DANGEROUS FSD OR SWD PERMITTED SPANNING POSITIONS 5 & 6 OR 6 & 7.

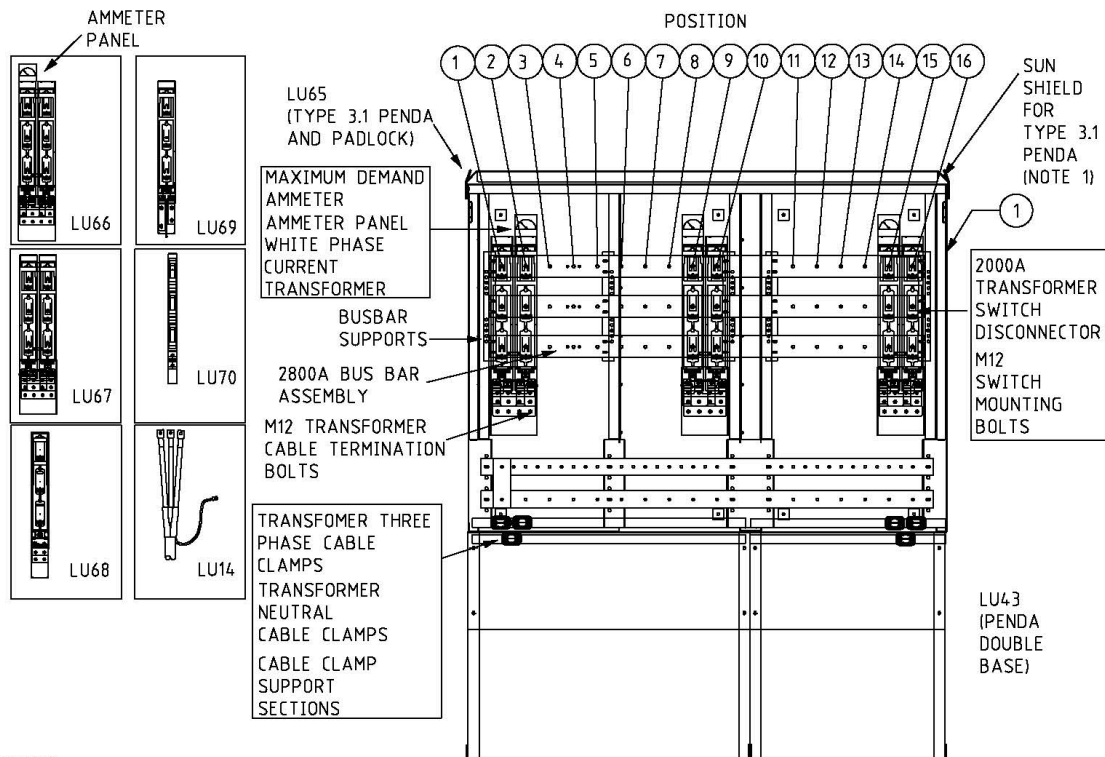
Note:

- LU42- Base for LV kiosk Type 2 required to be selected in order form.
- Use the PENDA ordering form (DM# 16874336) following the notes to configure the LV switchgear required for the design. Submit the form to Western Power for a quotation and then enter pricing manually into the Ellipse CU. There are no pre-populated materials and costs for PENDA in this CU.

TYPE 3.1 PENDA LAYOUT

SWG	MAX FUSE	CU	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
TYPE 3.1 PENDA		LU65																
PENDA BASE		LU43																
160A FSD	1 X 63A DIN00	LU70				L	L											
630 FSD	1 X 400A NH2	LU69				C/S	C/S	C/S	C/S	C/S	C/S	C/S	C/S	C/S	C/S			
910A FSD	1 X 630A NH3	LU68			E											E		
1260A FSD	2 X 400A NH2	LU67				C			C		C		C					
2000A SWD	LINKS SUPPLIED	LU66		TZ								C1						T1
FSD CABLE TERM	FUSES SUPPLIED	LU14				L/S	S	S	S	S	S	S	S	S	S			
TX CABLE TERM	TX MCCB	LU16	T2															T1

T = TRANSFORMER L = LIGHTING CIRCUIT E = EMERGENCY RESPONSE GENERATOR
 C = CONSUMER S = STREET CIRCUIT



- NOTES:-
1. LU66 CAN BE USED FOR THE TRANSFORMER AND CONTIGUOUS CONSUMER.
 2. EVERY INSTALLATION SHALL INCLUDE AN ERG CONNECTION 2 X LU68.
 3. 2 x LU70 OR 1 x LU69 CAN BE USED IN POSITION 4.
 4. 1 X LU14 NEEDED WITH EACH LU69 STREET FEEDER OR LU70 LIGHTING CIRCUIT.
 5. 1 X LU16 NEEDED WITH EACH LU66_TX IN PENDA AND 1 X LU16 FOR EACH LU59 (NON-MPS).
 6. LARGE CONSUMER CONNECTED VIA A 2000A SWITCH (LU66) MUST ALWAYS BE IN POSITIONS 7 & 8 OR 9 & 10.
 7. STANDARD PENDA LAYOUT SHOWN. DESIGNER MAY DESIGN AN ALTERNATIVE PENDA LAYOUT.
 8. NO GANGED FSD OR SWD PERMITTED SPANNING POSITIONS 5 & 6, 6 & 7 OR 10 & 11.
 9. DESIGNER TO USE LU65_0 FOR OUTDOOR INSTALLATIONS.

<p>DISTRIBUTION DESIGN CATALOGUE</p> <p>OPERATIONS DIVISION</p>	COMPATIBLE UNIT	REVISION 1	DATE 14/10/2021
	TYPE 3.1 PENDA KIOSK	DRAWING No. LU65	

CU	CU DESCRIPTION
LU65_O	Type 3.1 PENDA Kiosk – O (Outdoor)

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1		Type 3.1 PENDA	1	ea	
		Maximum demand ammeter	2	ea	
		Ammeter panel	2	ea	
		White phase current transformer	2	ea	
		Bus bar supports	5	ea	
		2800A bus bar assembly	1	ea	
		2000A transformer switch disconnecter	2	ea	
		M12 switch mounting bolts	4	kit	
		M12 transformer cable termination bolts	4	kit	
		Transformer 3 phase cable clamps (per phase)	4	kit	
		Transformer neutral cable clamps	2	ea	
		Cable clamp support section	2	ea	
		Cable clamp support section	2	ea	
		Sun shield for Type 2.1 PENDA	1	ea	
		Padlock	2	ea	

Use the below *Low Voltage Board Order/Quote/Material List (DM# 16874336)* to order

LV Board Order / Quote / Materials List																WP EDM # 24730582 v (3)			
Project Name / Location:																			
Western Power Reference No:																			
Required By Date:																			
Work Order:																			
Purchase Order:																			
Requisition Number:																			
Client:																			
Notes: (Delivery Instructions, Contact Details etc)																			
Requestor's Details: (Name, Email, Contact Number)																			
Delivery Code:																			
Quotation: \$227.79 Quotation + 10% GST \$250.56																			
PLEASE ORDER ALL MATERIALS ON PENDA MATERIAL LIST TAB																			
Customer Requirements																			
CU	Switchgear	Circuit Number														Total Quantity Required	Notes:		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14			15	16
LU65_O	Type 3.1 PENDA (Outdoor)																	0	1. Input Quantity Required (add into each circuit partition) 2. Only one switchgear panel per circuit 3. LUT0 may have up to 2 in circuit partition #4 4. Fuses provided with cable termination CU (see LU14) 5. Transformer cables and terminations to be ordered separately. Length to be determined by designer. Use 2 cable per phase and 1 for neutral for all size transformer. See compatible unit CU#6 and LUM in the DDC. Use 400 Cu on PENDA. 6. LUM6 is supplied with 2 transformer switch (LU66_T0) and is to be fitted in partition 1 & 2 (T02) and 15 & 16 (T03). LUM6 & LUM8 is added automatically when LU65 is selected. 7. LUT0 is added automatically when LUM6 is selected.
LU65_O	Type 3.1 PENDA (Outdoor)																	0	
LU43	Base for LV Switch Type 3																	0	
LU70	2000A Feed switch disconnecter																	0	
LU66	2000A Feed switch disconnecter																	0	
LU67	2000A Feed switch disconnecter																	0	
LU68	2000A Feed switch disconnecter																	0	
LU69	2000A Feed switch disconnecter																	0	
LU65_C	2000A Switch disconnecter																	0	
LU65_T0	2000A Switch disconnecter																	0	

TYPE 3.1 PENDA LAYOUT

SWG	MAX FUSE	CU	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
TYPE 3.1 PENDA		LUM5																
PENDA BASE		LU43																
200A FSD	1 x 20A 2N 20	LU70																
400A FSD	1 x 40A 4N 40	LU66																
2800A FSD	2 x 400A 2N 20	LU67																
2800A SHD	2 x 400A 2N 20	LU68																
FSD CABLE TERM	2 x 400A 2N 20	LU74																
TX CABLE TERM	2 x 400A 2N 20	LU75																

T = TRANSFORMER L = LIGHTING CIRCUIT E = EMERGENCY RESPONSE GENERATOR
C = CONSUMER L = LIGHTING CIRCUIT S = STREET CIRCUIT

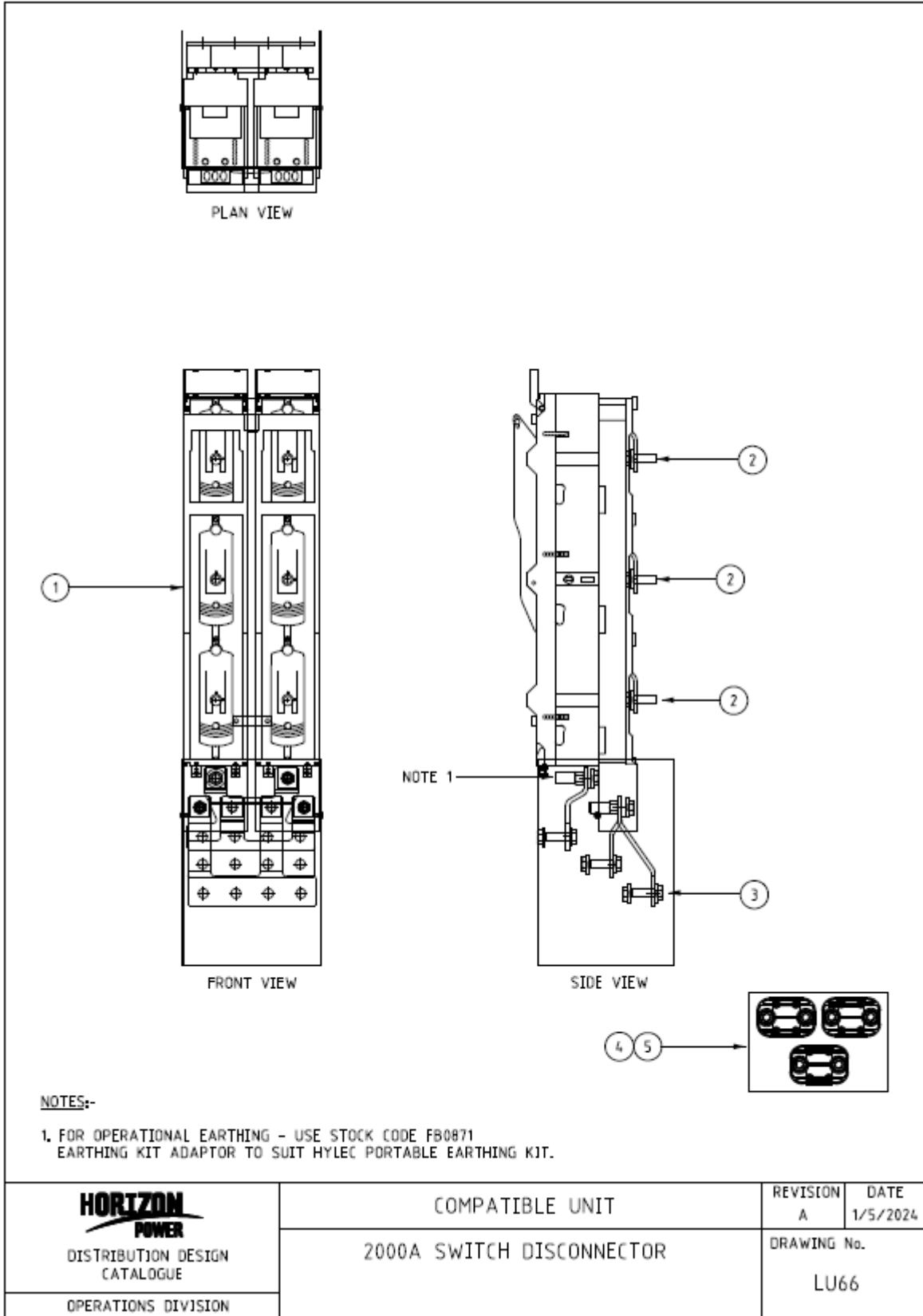
POSITION

NOTES:

- LUM CAN BE USED FOR THE TRANSFORMER AND CONTROLLER CONSUMER
- EVERY INSTALLATION SHALL INCLUDE AN END CONNECTION 2 x LUM6
- 2 x LUT0 OR 1 x LUM8 CAN BE USED IN POSITION 4
- 1 x LUM6 NEEDED WITH EACH LUM5 STREET FEEDER OR LUM5 LIGHTING CIRCUIT
- 1 x LUM6 NEEDED WITH EACH LUM5 TX IN PENDA AND 1 x LUM6 FOR EACH LUM5 (INDUSTRY)
- LARGE CONSUMER CONNECTED VIA A 2000A SWITCH (LUM6) MUST ALWAYS BE IN POSITIONS 1 & 2 OR 8 & 10
- STANDARD PENDA LAYOUT SHOWN, DESIGNER MAY DESIGN AN ALTERNATIVE PENDA LAYOUT
- NO SPANDED TSD OR SHD PERMITTED SPANNING POSITIONS 5 & 6, 8 & 9 OR 10 & 11.

Note:

- LU43- Base for LV kiosk Type 3 required to be selected in order form.
- Use the PENDA ordering form (DM# 16874336) following the notes to configure the LV switchgear required for the design. Submit the form to Western Power for a quotation and then enter pricing manually into the Ellipse CU. There are no pre-populated materials and costs for PENDA in this CU.



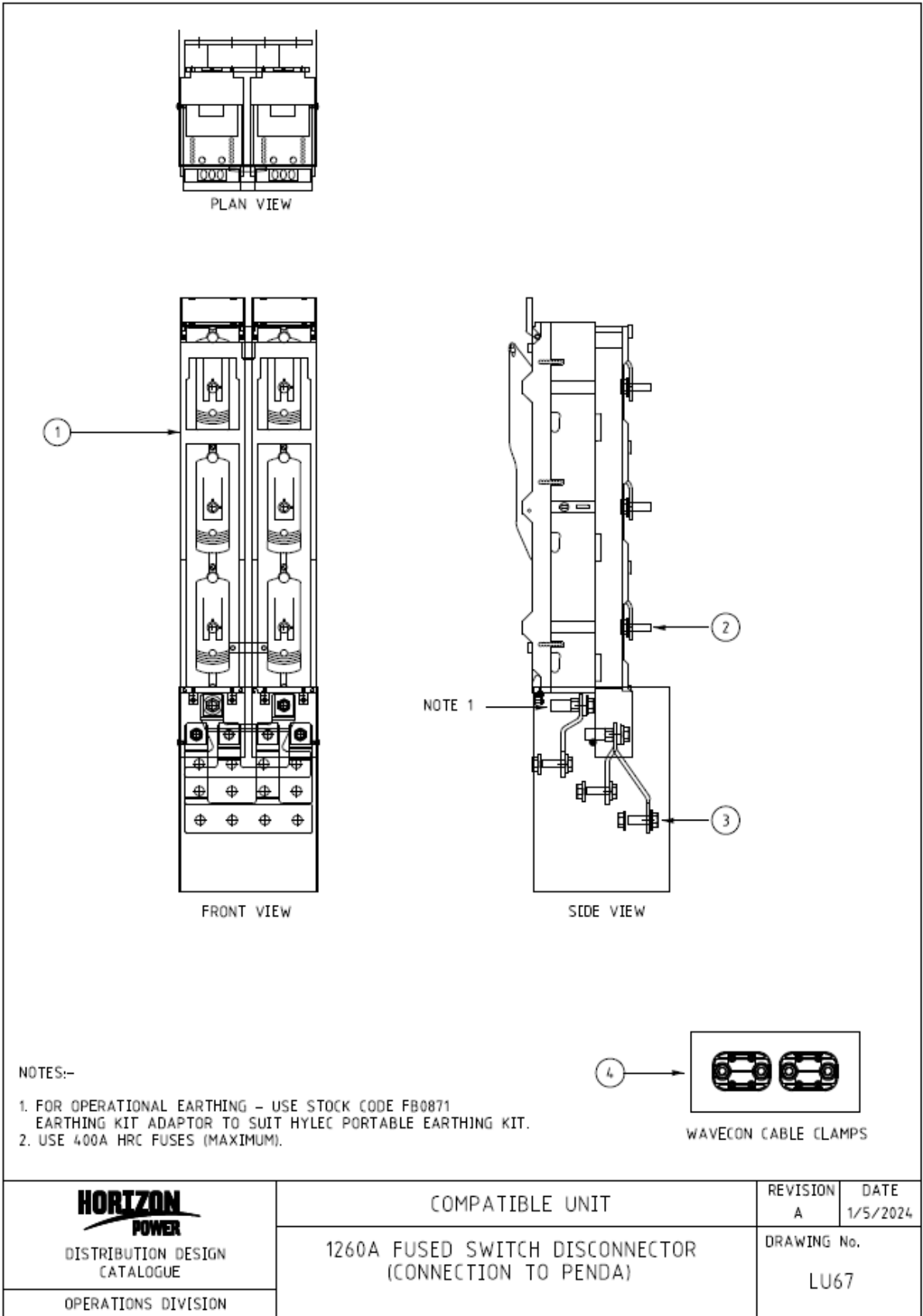
PROTECTED

CU	CU DESCRIPTION
LU66_TX	2000A Tx switch disconnecter (incoming supply to PENDA)

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FB0862	2000A transformer switch disconnecter	1	ea	
2	FB0872	M12 switch mounting bolts	2	kit	
3	FB0873	M12 transformer cable termination bolts (per cable)	2	kit	
4	FM0203	Transformer 3 phase cable clamps (per phase)	2	kit	
5	FM0200	Transformer neutral cable clamps	1	kit	

CU	CU DESCRIPTION
LU66_CUST	2000A Consumer switch disconnecter (connection to PENDA)

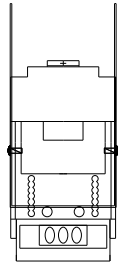
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FB0862	2000A transformer switch disconnecter	1	ea	
2	FB0872	M12 switch mounting bolts	2	kit	
3	FB0873	M12 transformer cable termination bolts (per cable)	4	kit	
4	FM0203	Transformer 3 phase cable clamps (per phase)	4	kit	
5	FM0200	Transformer neutral cable clamps	2	kit	



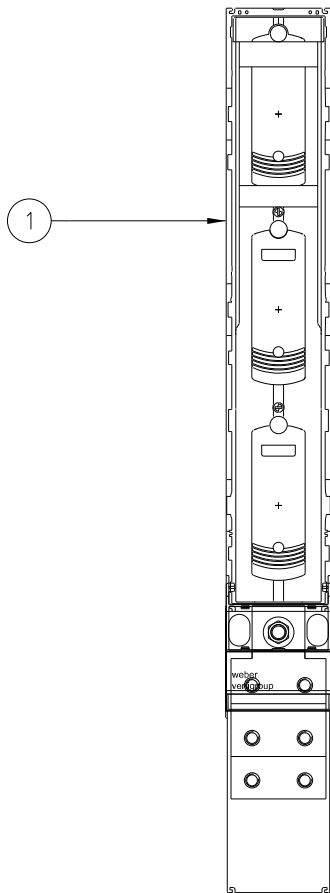
PROTECTED

CU	CU DESCRIPTION
LU67	1260A Fused switch disconnecter (connection to PENDA)

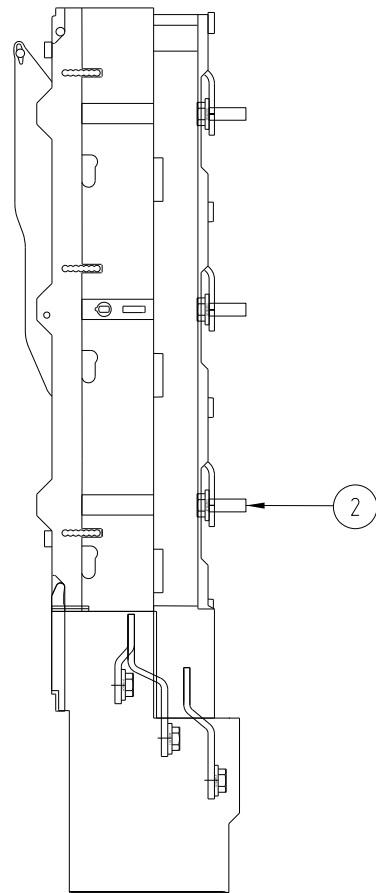
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FB0863	1260A fused switch disconnecter	1	ea	
2	FB0872	M12 switch mounting bolts	2	kit	
3	FB0873	M12 Wavecon cable termination bolts (per cable)	2	kit	
4	FM0204	Wavecon cable clamps (per cable)	2	kit	



PLAN VIEW



FRONT VIEW



SIDE VIEW

NOTES:-

1. USE 630A HRC FUSES (MAXIMUM).
2. FOR ERG CONNECTION TO PENDA.

**HORIZON
POWER**

DISTRIBUTION DESIGN
CATALOGUE

OPERATIONS DIVISION

COMPATIBLE UNIT

910A FUSED SWITCH DISCONNECTOR
(CONNECTION TO PENDA)

REVISION

1

DATE

15/5/2024

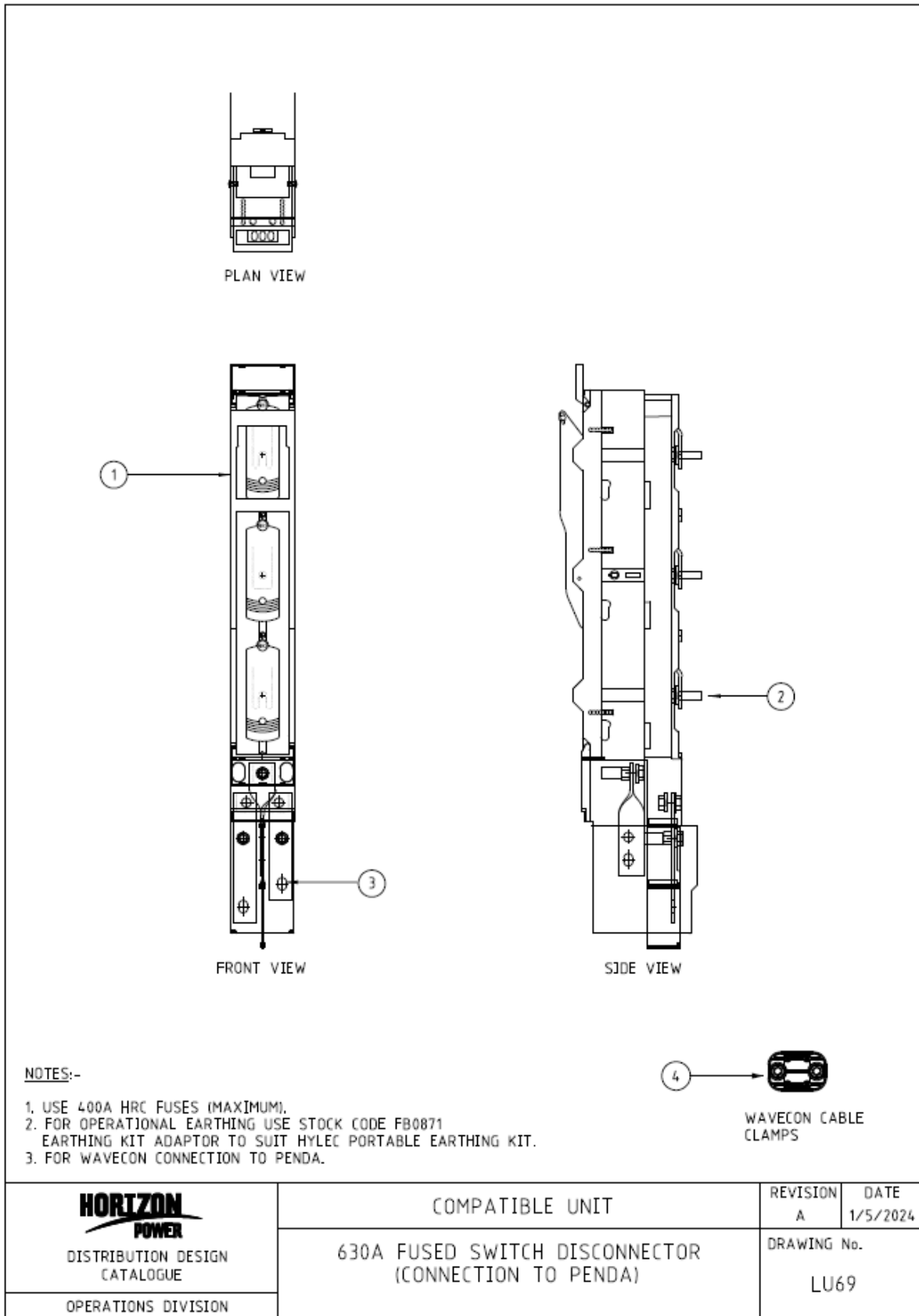
DRAWING No.

LU68

PROTECTED

CU	CU DESCRIPTION
LU68	910A Fused switch disconnecter (connection to PENDA)

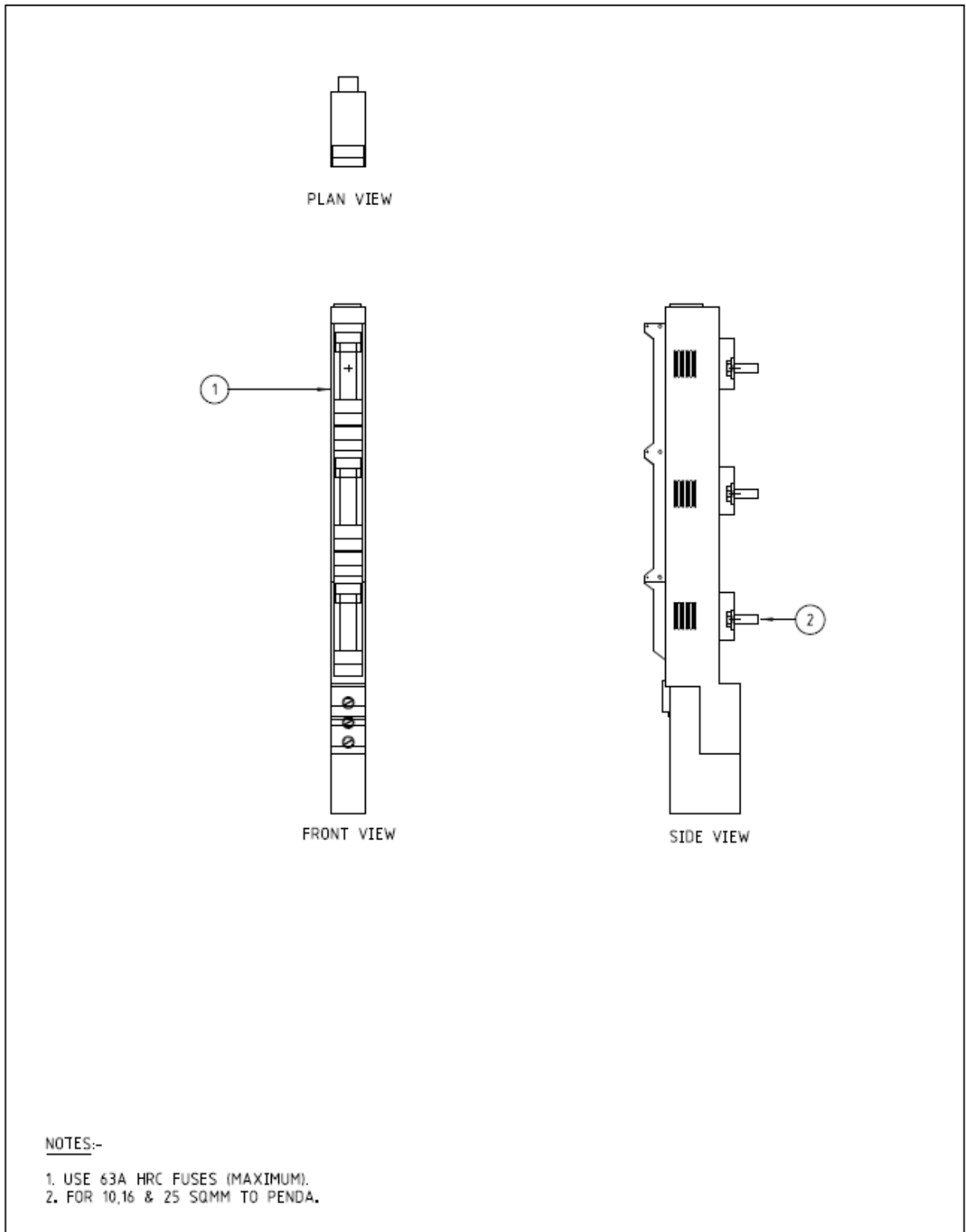
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FB0864	910A fused switch disconnecter	1	ea	
2	FB0874	M12 switch mounting bolts	1	kit	



PROTECTED


CU	CU DESCRIPTION
LU69	630A Fused switch disconnecter (connection to PENDA)

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FB0865	630A fused switch disconnecter	1	ea	
2	FB0872	M12 switch mounting bolts	1	kit	
3	FB0873	M12 Wavecon cable termination bolts (per cable)	1	kit	
4	FM0204	Wavecon cable clamps (per cable)	1	kit	



NOTES:-

1. USE 63A HRC FUSES (MAXIMUM).
2. FOR 10,16 & 25 SQMM TO PENDA.

 DISTRIBUTION DESIGN CATALOGUE OPERATIONS DIVISION	COMPATIBLE UNIT	REVISION A	DATE 1/5/2024
	160A FUSED SWITCH DISCONNECTOR (CABLE CONNECTION TO PENDA)	DRAWING No. LU70	

PROTECTED

CU	CU DESCRIPTION
LU70	160A Fused switch disconnecter (connection to PENDA)

ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	FB0866	160A fused switch disconnecter	1	ea	
2	FB0874	M8 switch mounting bolts	1	kit	

1) **REVISION INFORMATION**

(Informative) Horizon Power has endeavoured to provide standards of the highest quality and would appreciate notification if any errors are found or even queries raised.

Each Standard makes use of its own comment sheet which is maintained throughout the life of the standard, which lists all comments made by stakeholders regarding the standard.

The document **DM# 2152546** can be used to record any errors or queries found in or pertaining to this standard, which can then be addressed whenever the standard gets reviewed.

Date	Rev No.	Notes
	0	Western Power Supplied
01/07/2009	1	<ul style="list-style-type: none"> • Original Horizon Power issue
21/01/2014	2	Index List CU Description <ul style="list-style-type: none"> • LU50_SL_95 & 150 changed to LU50_10_16_95 & 150 • LU51_SL_AL & CU changed to LU51_10_16_AL & CU LU6 Drawing <ul style="list-style-type: none"> • Item (2) & (6) split to indicate parts LU9 Drawing & List <ul style="list-style-type: none"> • Items shown better LU34 Drawing & List <ul style="list-style-type: none"> • Item (5) added – cable protector LU35 Drawing & List <ul style="list-style-type: none"> • Item (5) added – cable protector • Item (3) changed from lug to saddle LU38 Drawing <ul style="list-style-type: none"> • W.P.C. removed • Earth Depth changed from 150 mm to 500 mm LU50 & LU51 Drawing & List <ul style="list-style-type: none"> • Items (4) and (6) removed
23/02/2018	3	LU9 Drawing & List <ul style="list-style-type: none"> • Item (10) added LU37 Drawing & List <ul style="list-style-type: none"> • Items (7) & (8) added LU50 Drawing & List <ul style="list-style-type: none"> • Items (9) & (10) added LU51 Drawing & List <ul style="list-style-type: none"> • Items (8), (9) & (10) added
14/12/2020	4	Resin separated from joint kits, drawing to be updated and also item (1) modified and item (2) created for the following lists: <ul style="list-style-type: none"> • LU1

Date	Rev No.	Notes
	0	Western Power Supplied
		<ul style="list-style-type: none"> • LU2 • LU3 • LU4 • LU5 <p>LU6 lists modified</p> <p>Item (2) changed from CC0138 to “select from CN9”.</p> <p>Updating LU14 with new cable termination</p> <ul style="list-style-type: none"> • LU14_16/160A • LU14_25/160A • LU14_25/630A <p>New CUs are added:</p> <ul style="list-style-type: none"> • LU16 • LU63 • LU64 • LU65 • LU66 • LU67 • LU68 • LU69 • LU70 <p>LU2 and LU3 are duplicates (LU3 removed)</p> <p>LU8 list modified:</p> <ul style="list-style-type: none"> • FJ0247 replaced with FJ0238. <p>LU9 lists modified:</p> <ul style="list-style-type: none"> • Item (4) changed from CC0138 to “PG Clamps – Select from CN9”. <p>Item (4) CZ0307 removed from:</p> <ul style="list-style-type: none"> • LU10 • LU10_2TERM • LU10_CABTERM <p>Removed LU10_SLTERM – Use UM3_R instead.</p> <p>LU10_W/END</p> <ul style="list-style-type: none"> • Replace CZ0307 by UH0088 <p>Removed LU19- repeat of LU1</p> <p>Removed LU33- Single Phase S/L cable</p> <p>LU34 GF1177 replaces with GF0505</p> <p>LU35 GF1188 replaces with GF0512</p> <p>LU37 added item (9) – Select IPC clamp from CN65</p> <p>Removed:</p> <ul style="list-style-type: none"> • LU38 • LU39 • LU40 • LU44 • LU45 • LU46 • LU46A

PROTECTED

Date	Rev No.	Notes
	0	Western Power Supplied
		<ul style="list-style-type: none"> • LU47 • LU49 GF0550 is replaced with GF1940 for: <ul style="list-style-type: none"> • LU50_SL_95 • LU50_SL_150 • LU50_SL LU51_25_AL renamed to LU51_25 Item (5) changed to "PG Clamps – Select from CN9" LU51_SL_AL renamed to LU51_SL Item (5) changed to "PG Clamps – Select from CN9" LU51_25_CU removed LU51_SL_CU removed Modified LU52 – Changed to 3Ph Service Pit Stock item descriptions updated for consistency. Removed LU14_185.
28/04/2021	5	FC0498 is replaced with FC0499 for: <ul style="list-style-type: none"> • LU6_240 • LU9_240 • LU37_240 Removed: <ul style="list-style-type: none"> • LU6_120, • LU9_120 • LU37_120
30/10/2021	6	LU1 list modified <ul style="list-style-type: none"> • FJ0043 replaced with FJ0063 • KC0002 replaced with KC0014 LU2 list modified <ul style="list-style-type: none"> • FJ0042 replaced with FJ0062 • KC0002 replaced with KC0014 LU4 list modified <ul style="list-style-type: none"> • FJ0047 replaced with FJ0067 • KC0002 replaced with KC0014 LU5 list modified <ul style="list-style-type: none"> • FJ0046 replaced with FJ0066 • KC0002 replaced with KC0014 LU12 list modified <ul style="list-style-type: none"> • FJ0241 replaced with FJ0056 Remove LU6_185 Remove LU6_240 LU63, LU64, LU65, LU66, LU67, LU68, LU69 and LU70

PROTECTED

Date	Rev No.	Notes
	0	Western Power Supplied
		<ul style="list-style-type: none"> • Update Order form with new version • Update notes of LU63 Remove LU9_185 Remove LU37_185
30/08/2022	7	Add LU53 Update LU63 drawing to rev 2
13/02/2024	8	Added CAH1018 and CAH1019 LU41, LU42 and LU43
21/5/2024	9	Stockcode added to LU66, LU67, LU68, LU69,LU70